Form 3160-3 (November 1983) (formerly 9-331C)

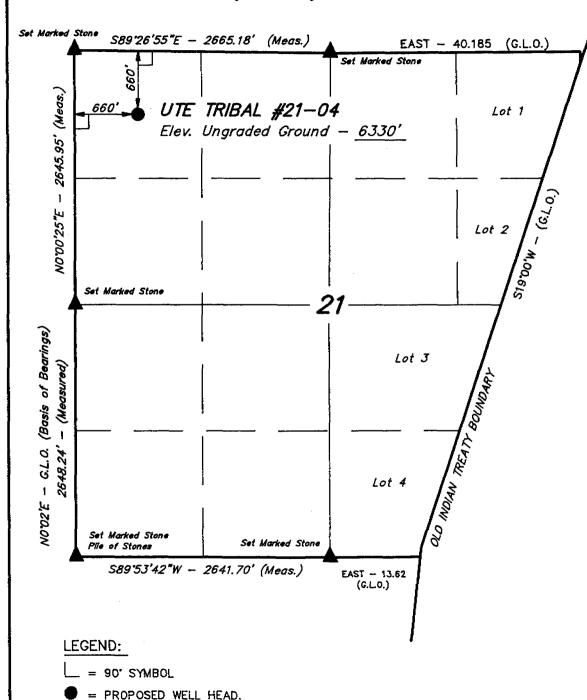
UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN T (Other instrutions on reverse side)

Form approved. Budget Bureau No. 1004-0136 Expires August 31, 1985

	DEFARIMEN	-		-		5. LEASE DESIGNATION	AND BERIAL NO.
		LAND MANA			····-	_14-20-н62-	3516
<u>APPLICATIO</u>	6. IF INDIAN, ALLOTTE						
ia. Type of Work	ILL X					UTE INDIA	
b. Type of well	ILL (A)	DEEPEN	U	PLUG BA	ACK L	7. UNIT AGREDMENT P	NAME
AV	VELL OTHER			INGLE MULT	HPLE [8. FARM OR LEASE NA	WE
2. NAME OF OPERATOR UTE TRIBAL							
PETROGLYPH OPERATING CO., INC. 9. WELL NO.							
8. ADDRESS OF OPERATOR						#21-04	
P.O. BOX 60	7, ROOSEVELT	, UTAH 8	4066			10. FIELD AND POOL,	OR WILDCAT
	teport location clearly and		th any	State requirements.*)		ANTELOPE C	REEK
660' F	'NL & 660' FWI	L NW/4N	W/4			11. SEC., T., R., M., OR AND SURVEY OR AL	BLE.
At proposed prod. 201	ne	•	-				
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	DESE MOWN OF DO	940 OM			SEC. 21,	T5S, R3W
	SOUTHWEST OF			E -		12. COUNTY OF PARISH	· -
10. DISTANCE FROM PROP	OSED*	MITON,		O. OF ACRES IN LEASE	17 NO 6	DUCHESNE DF ACRES ASSIGNED	UTAH
LOCATION TO NEARES PROPERTY OR LEASE:	T LINE, PT. g. unit line, if any \$60	ı	l .	33.33	TO TI	HIS WELL 40	
18. DISTANCE FROM PROI	TORED LOCATIONS		l .	OPOSED DEPTH	20 8074	4U	
OR APPLIED FOR, ON TH	ORILLING, COMPLETED, US LEASE, FT.		1	6152'	1	ARY	
21. ELEVATIONS (Show wh	ether DF, RT, GR, etc.)		<u>.</u>			22. APPROX. DATE WO	EK WILL START*
6327.4' GR	ADED GROUND					SEPTEMBER,	
23.		PROPOSED CAS	ING ANI	CEMENTING PROGR.	AM	<u> </u>	
SIZE OF HOLE	SIZE OF CABING	WEIGHT PER F		SETTING DEPTH	T	QUANTITY OF CEMEN	Nm
12 1/4	8 5/8	24.0#	250'		135 01	135 sx class "G" + 2% CaCl	
7 7/8	5 1/2	15.5#		6152'		#/sx cellof	
						POZMIX + 2%	
	1	I				CO 400' ABOV	
						TEREST (+ 10	
PETROGIA	YPH OPERATING	CO INC		TT DD mun		CEMENT (11	
DESIGNA	TED OPERATOR	CO., INC	D.TEC	LL BE THE		200' ABOVE	
UNDER BO	OND # BO 4556	or the 30	DUEC	T METT	5% EXC	ESH WATER IN	TERVALS (
	vision of Oi		nd M	ining	2% EAC		
Bureau	of Indian Afr	airs, Fo	rt D	uchesne. Uta	ah =		<u> </u>
Ute Tri	be, Fort Duck	nesne, Ut	ah		iii		17 Em
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CONFIDENTIAL OCT 1 5 1996							
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N ABOVE SPACE DESCRIBE	PROTOBED PROGRAM: If I	ropossi is to does	100 or D	luw hash a.s		IV. OF OIL, GAS &	4
one. If proposal is to reventer program, if any	erm by dechen allections	lly, give pertinent	datao	n subsurface locations s	nd measured	and true vertical depth	s. Give blowout
4.				<u></u>			
	P Chat					10.2	1000
SIGNED	- you		LE AG	ENT FOR PETR	ROGLYPH	DATE 10-3-	-1996
(This space for Feder	ral or State office use)						
PERMIT NO. 43-	018-31735	0		Appenical mass			/ /
	HOW , I		_/_	1/1/)	2//2/
APPROVED BY	MI putte	TIT	1.7/1/	Millim ma	nee	PATE ///	01/96
CONDITIONS OF APPROVE	IL, IF ANY :					7	
				•			

T5S, R3W, U.S.B.&M.



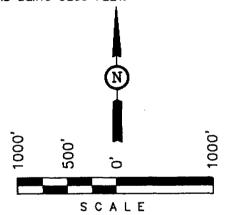
= SECTION CORNERS LOCATED.

PETROGLYPH OPERATING CO., INC.

Well location, UTE TRIBAL #21-04, located as shown in the NW 1/4 NW 1/4 of Section 21, T5S, R3W, U.S.B.&M. Duchesne County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 17, T5S, R3W, U.S.B.&M. TAKEN FROM THE DUCHESNE SE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6206 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLATINGS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY THE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELLES

REGISTERED LAND SURVEYOR REGISTRATION NO. 181319

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (801) 789-1017

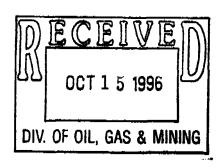
SCALE 1" = 1000'		DATE SURVEYED: 7-31-96	DATE DRAWN: 8-1-96			
PARTY G.S. J.K.	C.B.T.	REFERENCES G.L.O. PLA	AT			
WEATHER WARM		FILE PETROGLYPH OPERATING CO., INC.				

Petroglyph Operating Co., Inc. P.O. Box 1839

Hutchinson, KS 67504-1839

October 3, 1996

Utah Division of Oil, Gas, & Mining Attn: Mr. Frank Matthews, Petroleum Engineer 1594 West North Temple Box 145801 Salt Lake City, UT 84114-5801



RE: APPLICATION FOR PERMIT TO DRILL UTE TRIBAL # 21-04 NW/NW SEC. 21, T5S, R3W DUCHESNE COUNTY, UTAH LEASE NO. BIA 14-20-H62-3516 UTE TRIBAL LANDS

Dear Mr. Matthews:

Enclosed please find a copy of the Application for Permit to Drill and associated attachments for the referenced well.

Please address further communication regarding this matter (including approval) to:

Ed Trotter
P.O. Box 1910
Vernal, UT 84078
Phone # (801) 789-4120
Fax # (801) 789-1420

Sincerely

Ed Trotter Agent

Petroglyph Operating Co., Inc.

Attachments

/EHT/dmt

EIGHT POINT PLAN

UTE TRIBAL #21-04 NW/NW SEC. 21, T5S R3W DUCHESNE COUNTY, UTAH

1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

FORMATIONS	DEPTH	SUBSEA
Mahogany Shale	2959	3378
'X' marker	4539	1798
Douglas Creek	4681	1656
"B" Limestone	5059	1278
B/Castle Peak Limestone	5623	714
Basal Carbonate Limestone	6042	295
Total Depth	6152	185

Anticipated BHP

2600 psi

2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS FORMATIONS:

<u>Substance</u>	Formation	Depth	Subsea
Oil/Gas	Douglas Creek	4681	1656
Oil/Gas	B/Castle Peak	5623	714
Other mineral zones	N/A		

3. PRESSURE CONTROL EQUIPMENT : BOP Schematic Diagram attached.

4. CASING PROGRAM:

					MININ	IUM SAFETY	FACTOR	
HOLE SIZI	E INTERVAL	LENGTH	SIZE	WEIGHT	GRADE	COLLAPS	E BURST T	ENSILE
12 1/4	0' - 250'	250'	8 5/8	24.0 #	J-55	1370 PSI	2950 PSI	263,000#
7 7/8	0' - 6152'	6152'	5 1/2	15.5 #	M-50	3650 PSI	4550 PSI	186,000#

All casing will be new or inspected.

EIGHT POINT PLAN

UTE TRIBAL #21-04 NW/NW SEC. 21, T5S R3W DUCHESNE COUNTY, UTAH

5. MUD PROGRAM

INTERVAL	MUD TYPE
0' - 250'	Air
250' - 4000'	Air/Mist & Aerated Water
4000' - TD	Air/3% KCL water or KCL substitute
TD	Gel/polyacrylamide plolymer w/5-10% LCM

Sufficient mud inventory will be maintained on location during drilling to handle any adverse conditions that may arise.

6. **VARIANCE REQUESTS:**

- A. Petroglyph Operating Co., Inc. requests a variance to regulations requiring a straight run blooie line.
- B. Petroglyph Operating Co., Inc. requests a variance to regulations requiring an automatic ignitor or continuous pilot light on the blooie line.

7. **EVALUATION PROGRAM**:

Logs: Mud Logging	T.D. to base of surface csg.
Compensated Density-Compensated Neutron Log	T.D. to base of surface csg.
Dual Laterolog - Micro-SFL	T.D. to base of surface csg.
Numar (Magnetic Resonance Imaging Log)	@ Geologists discretion

Cores: None Programmed DST': None Programmed

Completion: To be submitted at a later date.

8. **ABNORMAL CONDITIONS**:

None anticipated.

EIGHT POINT PLAN

UTE TRIBAL # 21-04 NW/NW SEC. 21, T5S R3W DUCHESNE COUNTY, UTAH

9. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

10. HAZARDOUS CHEMICALS:

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in associaton with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in associaton with the drilling of this well.

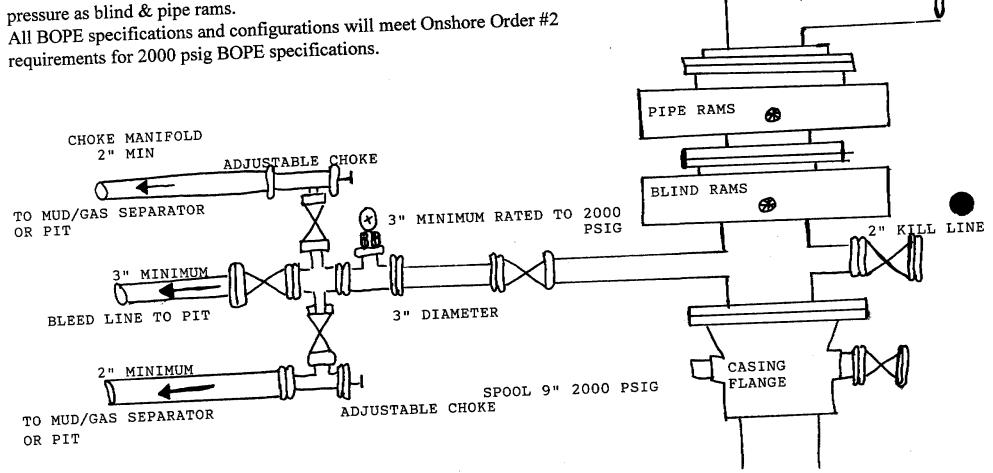
(Attachment: BOP Schematic Diagram)

2000 PSIG DIAGRAM

BOTH RAMS ARE 2000 PSIG RATED. CASING FLANGE IS 9" 2000 PSIG RATED. BOPE 9" 2000 PSIG

TESTING PROCEDURE:

- 1. BOPE 's will be tested with a professional tester to conform to Onshore Order #2 with retest every 14 days.
- 2. Blind rams will be tested to rated working pressure, 2000 psig
- 3. Casing will be tested to 0.22 psi/ft. or 1500 psig. Not to exceed 70% of burst strength, whichever is greater.
- 4. All lines subject to well pressure will be pressure tested to the same pressure as blind & pipe rams.
- 5. All BOPE specifications and configurations will meet Onshore Order #2 requirements for 2000 psig BOPE specifications.



ROTATING

HEAD

FLOW LINE

CONDITIONS OF APPROVAL FOR THE SURFACE USE PROGRAM OF THE APPLICATION FOR PERMIT TO DRILL

Company/Operator: Petroglyph Operating Co., Inc.

Well Name & Number: <u>Ute Tribal #21-04</u> Lease Number: <u>BIA 14-20-H62-3516</u>

Location: 660' FNL & 660' FWL NW/NW, Sec. 21, T5S R3W

U.S.B.&M., Duchesne County, Utah

Surface Ownership: Ute Indian Tribe

NOTIFICATION REQUIREMENTS

Location Construction - forty-eight (48) hours prior to construction of location and access roads.

Location Completion - prior to moving on the drilling rig.

Spud Notice

- at least twenty-four (24) hours prior to spudding the

well.

Casing String and

Cementing

- twenty-four (24) hours prior to running casing and

cementing all casing strings.

BOP and related

Equipment Tests

- twenty-four (24) hours prior to running casing and

tests.

First Production

Notice

- within five (5) business days after new well begins

or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice To Drill and Surface Use Program.

THIRTEEN POINT SURFACE USE PROGRAM

1. EXISTING ROADS

- A. See attached Wellsite Plats showing directional reference stakes on location, and attached TOPO Map "B" showing access to location from existing road.
- B. The proposed well site is located approximately 23 miles southwest of Myton, Utah See attached TOPO Map "A".
- C. Refer to attached Topographic Map "A" showing labeled access route to location.
- D. Existing roads will be maintained and repaired as necessary. No off lease Right-of-Way will be required.

2. PLANNED ACCESS ROAD

- A. The access road will be approximately 0.3 miles in length. See attached TOPO Map "B"
- B. The access road has a 30 foot ROW w/18 foot running surface.
- C. Maximum grade on access road will be 8%
- D. No turnouts will be required.
- E. Road drainage crossings shall be of the typical dry creek drainage crossing type.
- F. No culverts, bridges or major cuts & fills will be required.
- G. The access road will be dirt surface.
- H. No gates, cattleguards or fences will be required or encountered.

New or reconstructed roads will be centerlined - flagged at time of location staking.

All travel will be confined to existing access road Right-of-Way. Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service Publication: Surface Operating Standards For Oil & Gas Exploration and Development, (1989).

The road shall be upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Upgrading shall include ditching, drainage, graveling, crowning, and capping the

roadbed as necessary to provide a well-constructed safe road. Prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30 foot Right-of- Way will not be allowed.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossings nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by run off water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided.

As operator, Petroglyph Operating Co., Inc. shall be responsible for all maintenance on cattleguards, or gates associated with this oil and/or gas operation.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS OF PROPOSED WELL LOCATION

- A. Water wells None
- B. Abandoned wells None
- C. Temporarily abandoned wells None.
- D. Disposal wells None.
- E. Drilling wells None.
- F. Producing wells 7*
- G. Shut in wells None
- H. Injection wells None(*See attached TOPO map "C" for location)

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. ON WELL PAD

- 1. Tank batteries None
- 2. Production facilities-To be submitted later
- 3. Oil gathering lines None

- 4. Gas gathering lines-None
- 5. Injection lines None
- 6. Disposal lines None
- 7. Surface pits None

B. OFF WELL PAD

- 1. Proposed location of attendant off pad flowlines shall be flagged prior to archaeological clearance.
- 2. A 4 1/2" OD steel above ground production pipeline will be laid approximately 45' from proposed location to a point in the NW/NW of Section 21, T5S, R3W, where it will tie into Petroglyph Operating Co., Inc.'s existing pipeline. Proposed pipeline crosses Ute Tribe lands, thus a Right-of-Way grant will be required. See attached TOPO Map D showing pipeline route.
- 3. Proposed pipeline will be a 4 1/2" OD steel, welded line laid on the surface.
- 4. Protective measures and devices for livestock and wildlife will be taken and/or installed where required.

If storage facilities/tank batteries are constructed on this lease, the facility/battery or the well pad shall be surrounded by a containment dike of sufficient capacity to contain, at a minimum, the entire contents of the largest tank within the facility/battery, unless more stringent protective requirements are deemed necessary by the authorized officer.

The production facilities will be placed on the Ute Tribal #21-05 location.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities required will be painted within 6 months of installation. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

The required paint color is Desert Brown.

5. LOCATION & TYPE OF WATER SUPPLY

- A. Water supply will be from Target Trucking's Roosevelt Brine Storage and/or Target's water source in SE 1/4, Sec. 1, T 4S, R 5W Duchesne County, Utah (State water right #43-10152). All water will come from a non-depletable source.
- B. Water will be hauled by Target Trucking.
- C. No water well will be drilled on lease.

6. SOURCE OF CONSTRUCTION MATERIAL

- A. All construction material for this location and access road will be of native borrow and soil accumulated during the construction of location.
- B. All construction material will come from Ute Tribal Land.
- C. No mineral materials will be required.

7. METHODS OF HANDLING WASTE DISPOSAL

A. METHODS AND LOCATION

- 1. Cuttings will be confined in the reserve pit.
- 2. A portable toilet will be provided for human waste during the drilling and completion of the well. Disposal will be at the Vernal sewage disposal plant.
- 3. Burning will not be allowed. Trash and other waste material will be contained in a wire mesh cage and disposed of at an approved waste disposal facility.
- 4. Produced waste water will be confined to a lined pit or storage tank for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, together with the required water analysis, will be submitted for the AO's approval.
- 5. All chemicals will be disposed of at an authorized disposal

site. Drip pans and absorbent pads will be used on drilling rig to avoid leakage of oil to pit.

B. Water from drilling fluids and recovered during testing operations will be disposed of by either evaporating in reserve pit or be removed and disposed of at an authorized disposal site.
Introduction of well bore hydrocarbons to reserve pit will be avoided by flaring them off in flare pit at time of recovery.

Burning of trash will not be allowed. All trash must be contained in a trash cage and hauled away to an approved disposal site at the completion of the drilling activities.

On BIA administered land:

allow discharge of liquids.

All reserve pits will be lined with either native clay, commercial bentonite or plastic sufficient to prevent seepage. (If a plastic nylon reinforced liner is used, it shall be torn and perforated after the pit dries and before backfilling of the reserve pit).

A 12 mill liner shall be installed in the reserve pit.

_____To protect the environment: If the reserve pit is lined the operator will provide the BIA with a chemical analysis of the fluids in that pit no later than 90 days after the well completion to determine the method for final reclamation of the reserve pit. If the elemental concentrations shown by the chemical analysis exceeds the requirements described by part II, Standards of Quality for Waters of the State, Wastewater Disposal Regulations, State of Utah Division of Health, the contents and liner will be removed and disposed of at an authorized disposal site. ______To protect the environment (without a chemical analysis) reserve pits will be constructed so as not to leak, break, or

Storage tanks will be used if drill sites are located on tribal

irrigable land, flood plains, or on lands under crop production.

After first production, produced waste water will be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. During the 90 day period, in accordance with NTL-2B, an application for approval of a permanent disposal method and location, along with required water analysis, shall be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance.

8. ANCILLARY FACILITIES

A. No airstrips or camps are planned for this well.

9. WELL SITE LAYOUT

- A. Refer to attached well site plat for related topography cuts and fills & cross sections.
- B. Refer to attached well site plat for rig layout and soil material stockpile location as approved on On-site.
- C. Refer to attached well site plat for rig orientation parking areas, and access road.

The reserve pit will be located on the South side of the location.

The flare pit will be located downwind of the prevailing wind direction on the South side of the location, a minimum of 100 feet from the well head and 30 feet from the reserve pit fence.

The stockpiled topsoil will be stored on the North side of the location.

Access to the well pad will be from the South.

N/A Diversion ditch(es) shall be constructed on the _______

side of the location (above/below) the cut slope, draining to

the ______

N/A Soil compacted earthen berm(s) shall be placed on the ______

side(s) of the location between the ______

N/A The drainage(s) shall be diverted around the sides of the well pad location.

N/A The reserve pit and/or pad locations shall be constructed long and narrow for topographic reasons ______

N/A Corner No. will be rounded off to minimize

FENCING REQUIREMENTS

All pits will be fenced according to the following minimum standards:

- A. 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire. (barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence).
- B. The net wire shall be no more than 2 inches above the ground. The barbed wire strand shall be 3 inches above the net wire. Total height of the fence shall be at least 42 inches.
- C. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- D. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16'.
- E. All wire shall be stretched by using a stretching device before it is attached to the corner posts.

The reserve pit fencing will be on the three sides during drilling operations and on the fourth side when the rig moves off the location. Pits will be fenced and maintained until clean-up.

Each existing fence to be crossed by the access road shall be braced and tied off before cutting so as to prevent slacking of the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and upon completion of construction the fence shall be repaired to BIA or SMA specifications. A cattleguard with an adjacent 16 foot gate shall be installed in any fence where a road is to be regularly travelled. If the well is a producer, the cattleguards (shall/shall not) be permanently mounted on concrete bases. Prior to a new road, crossing any fence located on federal land, or any fence between federal land and private land, the operator will contact the BIA, who will in turn contact the grazing permittee or owner of said fence and offer him/her the opportunity to be present when the fence is cut in order to satisfy himself/herself that the fence is adequately braced and tied off.

10. PLANS FOR RESTORATION OF SURFACE

A. PRODUCING LOCATION

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.

Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with CFR 3162.7-1.

If a plastic nylon reinforced liner is used, it shall be torn and perforated before backfilling of the reserve pit.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 120 days from the date of well completion (weather permitting). Before any dirt work takes place, the reserve pit will be completely dry and all cans, barrels, pipe, fluid, and hydrocarbons, will be removed.

Contact appropriate surface management agency for required seed mixture.

B. DRY HOLE/ABANDONED LOCATION

At such time as the well is plugged and abandoned, the operator will submit a subsequent report of abandonment and BIA will attach the appropriate surface rehabilitation conditions of approval.

ON BIA Administered lands:

Abandoned well sites, roads, or other disturbed areas will be restored to near their original condition. This procedure will include: (a) reestablishing irrigation systems where applicable, (b) reestablishing soil conditions in irrigated fields in such a way as to ensure cultivation and harvesting of crops and, (c) ensuring revegetation of the disturbed areas to the specifications of the Ute Indian Tribe or the BIA at the time of abandonment.

11. SURFACE OWNERSHIP

Access road:

Ute Indian Tribe

Location:

Ute Indian Tribe

12. OTHER INFORMATION

A. Petroglyph Operating Co., Inc. will inform all persons in the area who are associated with this project that they are subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the AO. Within five working days the AO will inform the operator as to:

-whether the materials appear eligible for the National Register of historic Places;

the mitigation measures the operator will likely have to undertake before the site can be used.

-a time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wished, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials that may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that required mitigation has been completed, the operator will then be allowed to resume construction.

B. As operator, Petroglyph Operating Co., Inc. will control noxious weeds along Right-of-Ways for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds will be obtained from the BIA, or the appropriate County Extension Office. On BIA administered land,

- a Pesticide Use proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.
- C. Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on Tribal Lands after the conclusion of drilling operations or at any other time without BIA authorization. However, if BIA authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

On BIA administered land:

Operator's employees, including subcontractors, will not gather firewood along roads constructed by operators. If wood cutting is required, a permit will be obtained from the Forestry Department of the BIA pursuant to 25 CFR 169.13 "Assessed Damages Incident to Right-of-Way authorization". All operators, subcontractors, vendors, and their employees or agents may not disturb saleable timber (including firewood) without a duly granted wood permit from the BIA Forester.

If the surface rights are owned by the Ute Indian Tribe and mineral rights are owned by another entity, an approved right-of-way will be obtained from the BIA before the operator begins any construction activities. If the surface is owned by another entity and the mineral rights are owned by the Ute Indian Tribe, rights-of-way will be obtained from the other entity.

All roads constructed by operators on the Uintah and Ouray Indian Reservation will have appropriate signs. Signs will be neat and of sound construction. They will state: (a) that the land is owned by the Ute Indian Tribe, (b) the name of the operator, (c) that firearms are prohibited to all non-Ute Tribal members (d) that permits must be obtained from the BIA before cutting firewood or other timber products, and (e) only authorized personnel permitted. All well site locations on the Uintah and Ouray Indian Reservation will have an appropriate sign indicating the name of the operator, the lease serial number, the well name and number, the survey

description of the well (either footage or the quarter-quarter section, the section, township, and range).

Additi	ional Surface Stipulations					
N/A	_No construction or drilling activities	shall be conducted between				
	and be	ecause of				
N/A	_No surface occupancy will be allowed	1 within 1,000 feet of any sage				
	grouse strutting ground.					
N/A	/A No construction or exploration activities are permitted within 1.5					
mile radius of sage grouse strutting grounds from April 1 to June 30						
N/A	N/A There shall be no surface disturbance within 600 feet of live water					
	(includes stock tanks, springs, and gu	zzlers).				
N/A	_No cottonwood trees will be removed	or damaged.				
N/A	_Pond will be constructed according to	BLM specifications				
	approximatelyft	of the location, as flagged				
	on onsite.					
LESS:	EE'S OR OPERATOR'S REPRESENT	ATIVE AND CERTIFICATION				
	PERMITTING	OPERATIONS				
	Ed Trotter	Deanna Bell				
	1620 West 750 North	P.O. Box 607				
	Vernal UT 84078	Roosevelt, UT 84066				
	Telephone # (801)789-4120	(801) 722-2531				
	Fax # (801) 789-1420	Fax # (801) 722-9145				
	a man (a bay 100 a tab	1 (001) 122 7110				

All lease/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approval plan of operations, and any applicable Notice to Lessees. Petroglyph Operating Co., Inc. is fully responsible for the actions of their subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.

A copy of the approved APD and ROW grant, if applicable, shall be on

location during construction of the location and drilling activities.

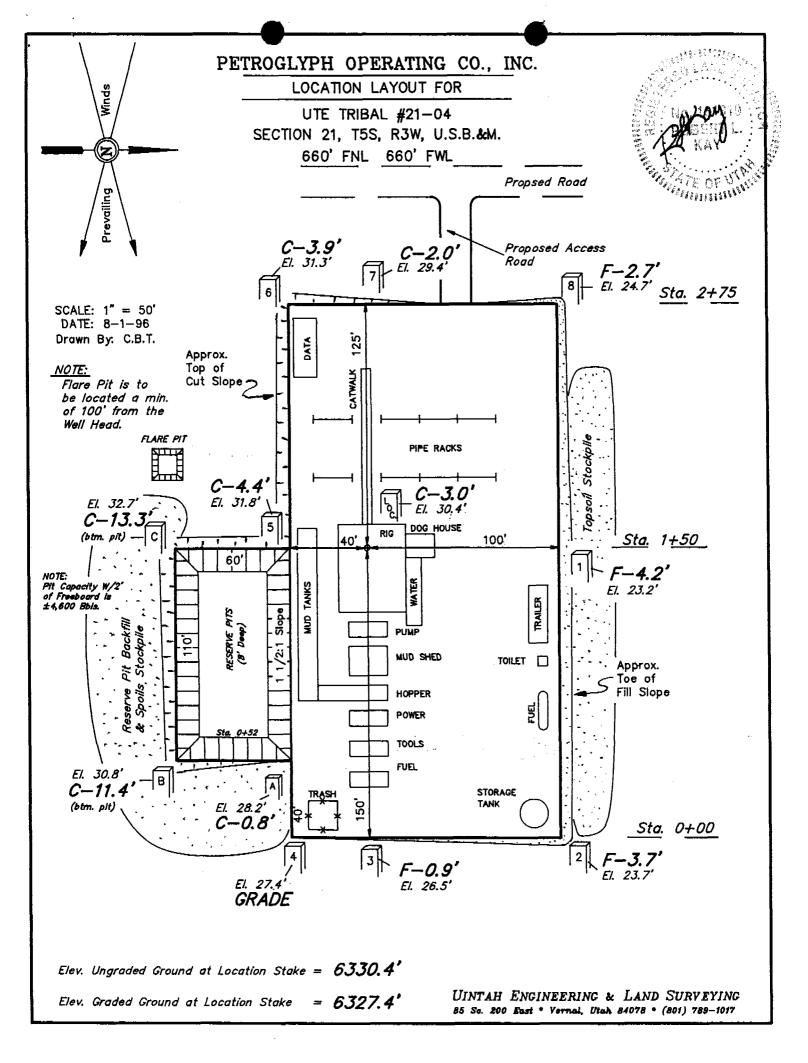
The BIA Office shall be notified upon site completion prior to moving on the drilling rig.

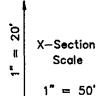
Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the Plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Petroglyph Operating Co., Inc. and its contractors and sub-contractors in conformity with this Plan and the terms and conditions under which it is approved.

0-3-16

Date



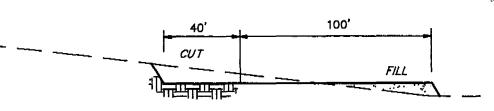


PETROGLYPH OPERATING CO., INC.

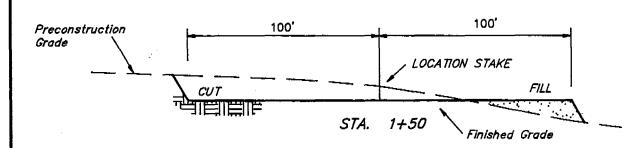
TYPICAL CROSS SECTIONS FOR

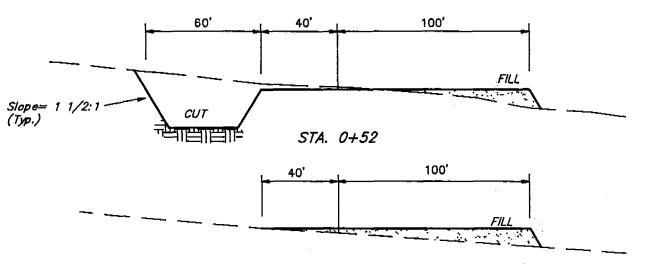
UTE TRIBAL #21-04 SECTION 21, T5S, R3W, U.S.B.&M. 660' FNL 660' FWL

DATE: 8-1-96 Drawn By: C.B.T.



STA. *2+75*





0+00 STA.

APPROXIMATE YARDAGES

(12") Topsoil Stripping = 1,670 Cu. Yds..

Remaining Location

= 2,950 Cu. Yds.

TOTAL CUT = 4,620 CU.YDS.

FILL = 2,140 CU.YDS. EXCESS MATERIAL AFTER

5% COMPACTION

= 2,370 Cu. Yds.

CASSERBARIONS

Topsoil & Pit Backfill

= 2,370 Cu. Yds...

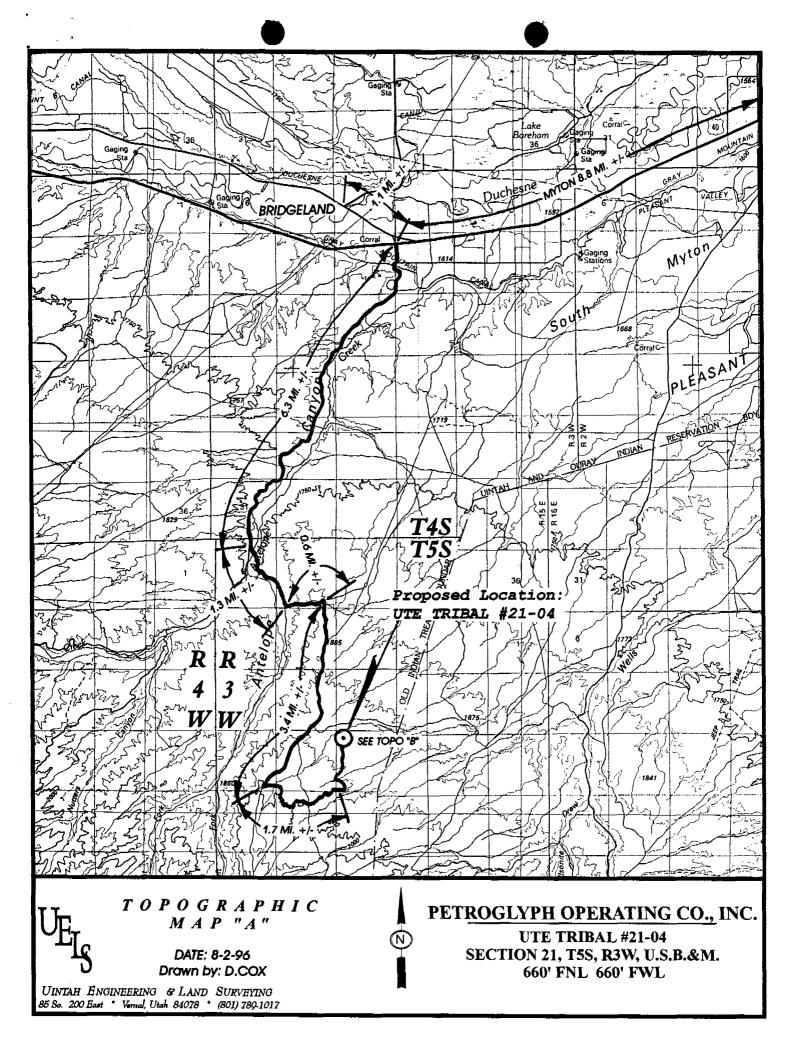
(1/2 Pit Vol.)

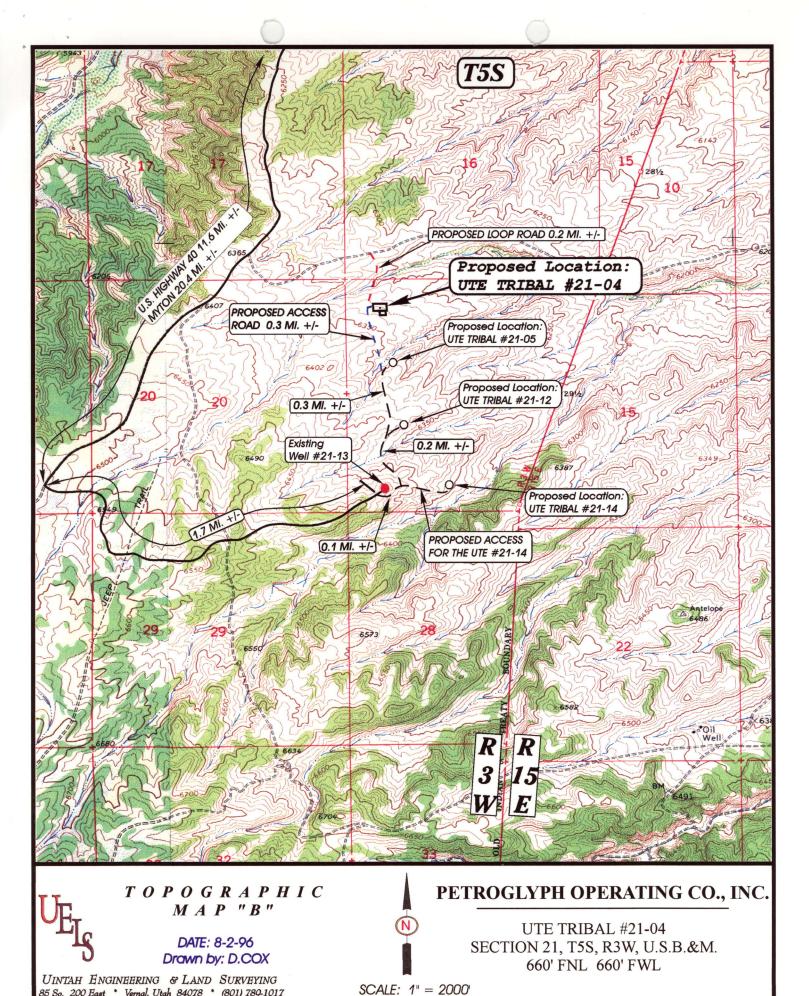
EXCESS UNBALANCE

O Cu. Yds.

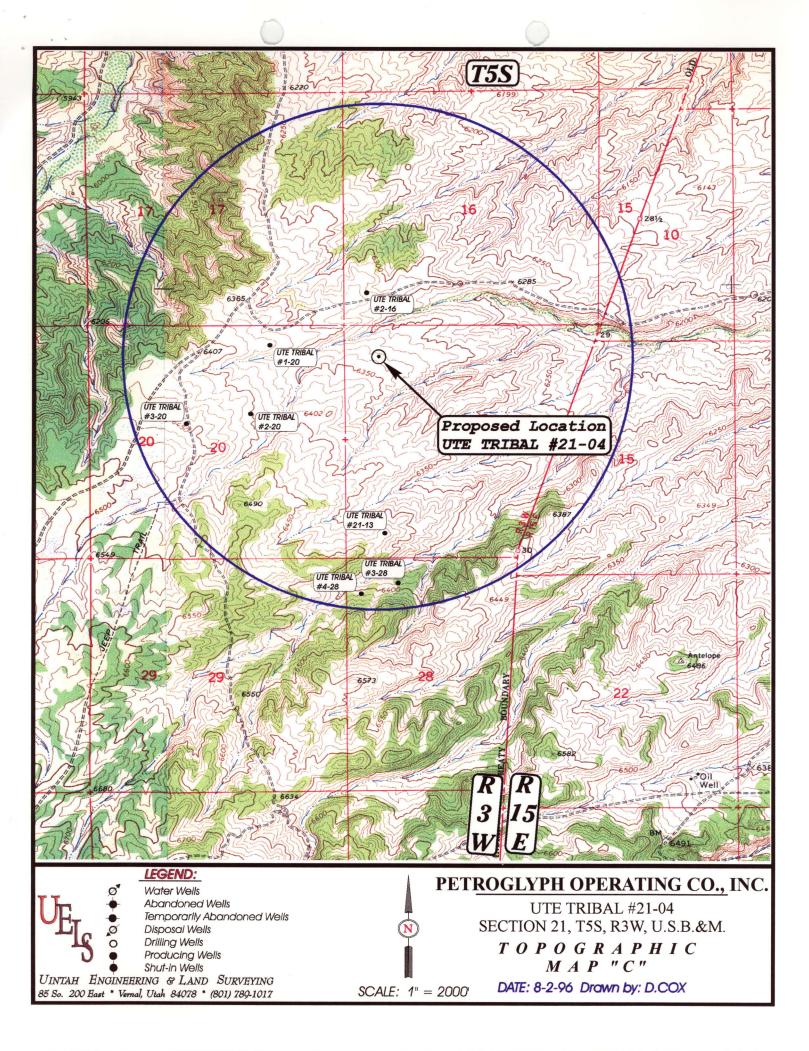
(After Rehabilitation)

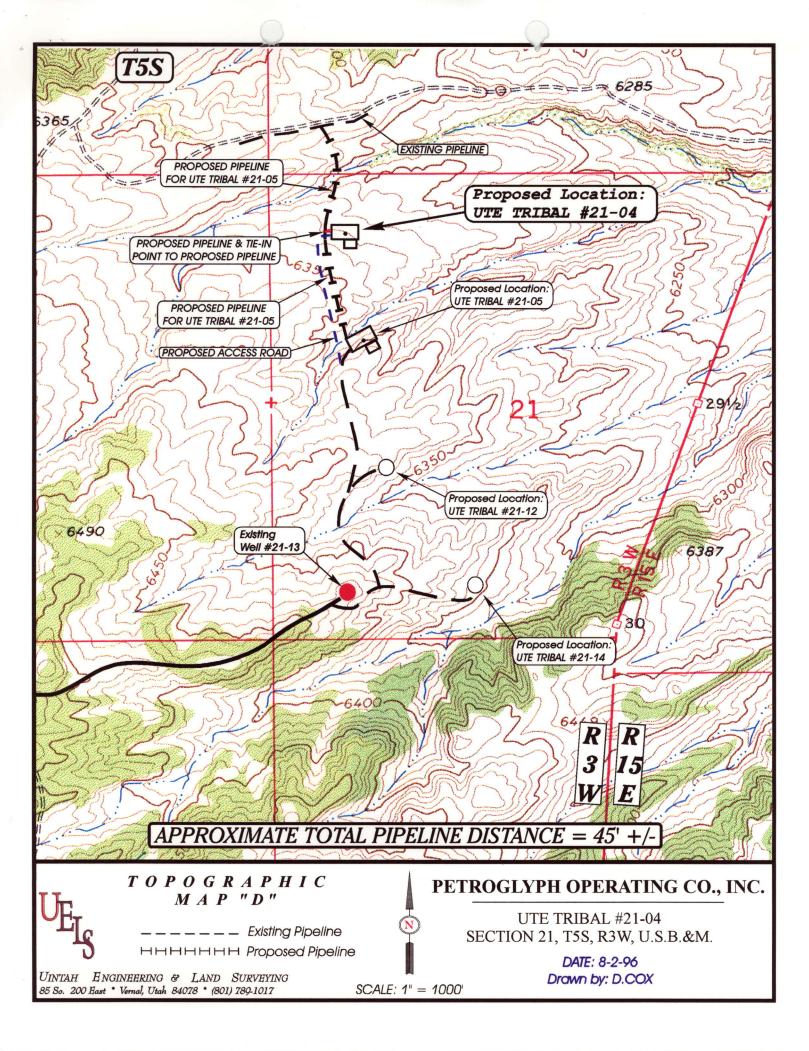
UINTAH ENGINEERING & LAND SURVEYING 85 Se. 200 East * Vernal, Utah 84078 * (801) 789-1017





85 So. 200 East * Vernal, Utah 84078 * (801) 789-1017





WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/15/96 API NO. ASSIGNED: 43-013-31735 WELL NAME: UTE TRIBAL 21-04 OPERATOR: PETROGLYPH OPERATING CO (N3800) INSPECT LOCATION BY: / / PROPOSED LOCATION: NWNW 21 - T05S - R03W TECH REVIEW Initials SURFACE: 0660-FNL-0660-FWL Date BOTTOM: 0660-FNL-0666-FWL DUCHESNE COUNTY Engineering ANTELOPE CREEK FIELD (060) Geology LEASE TYPE: IND LEASE NUMBER: 14-20-H62-3516 Surface PROPOSED PRODUCING FORMATION: GRRV RECEIVED AND/OR REVIEWED: LOCATION AND SITING: Plat R649-2-3. Unit: _____ Bond: Federal State [] Fee [] (Number 50 4556) R649-3-2. General. Potash (Y/N) Oil shale (Y/N) R649-3-3. Exception. Water permit, 3/10/10/10/2015 Drilling Unit. RDCC Review (Y/N) Board Cause no: ____ (Date: Date: COMMENTS: STIPULATIONS:

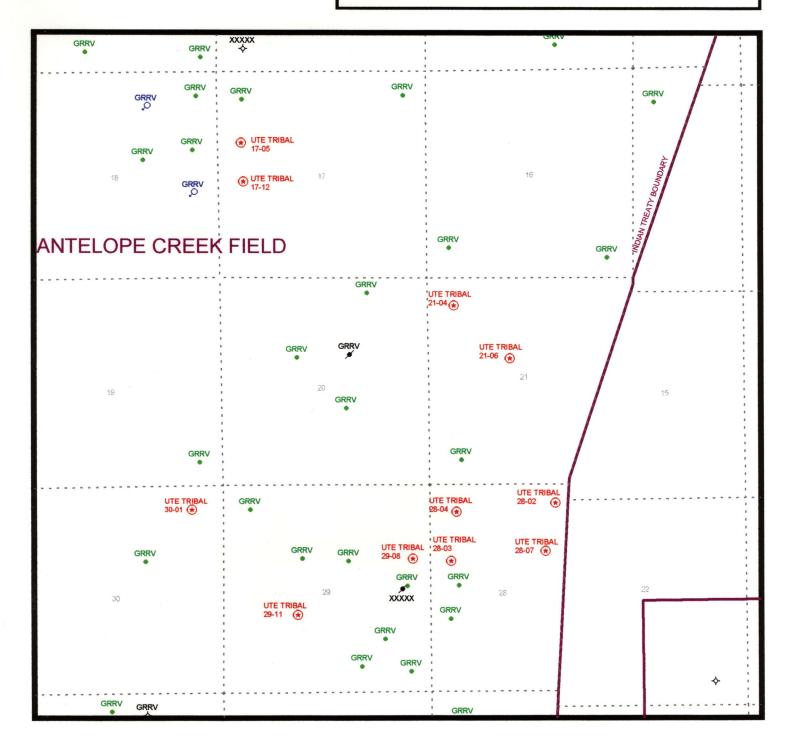
OPERATOR: PETROGLYPH

FIELD: ANTELOPE CREEK (060)

SEC. TWP. RNG: 21 T5S R3W

COUNTY: DUCHESNE

UAC: R649-3-3



PREPARED:

DATE: 21-OCT-96

STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Well Name: UTE TRIBAL 21-04 Operator: PETROGLYPH OPERATING

Location: SEC. 21 - T5S - R3W Project ID: 43-013-31735

Design Factors: Design Parameters:

Mud weight (8.90 ppg) : 0.462 psi/ft Collapse : 1.125 Burst : 2454 : 1.00 Shut in surface pressure psi (J) . Internal gradient (burst) : 0.063 8 Round : 1.80 psi/ft Buttress Annular gradient (burst) : 0.000 psi/ft : 1.60 (J)Tensile load is determined using air weight Other : 1.50 (J) Service rating is "Sweet" Body Yield : 1.50 (B)

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	e Joi		Depth (feet)	Drift (in.)	Cost
1	6,152	5.500	15.50	M- 50	O ST	& C	6,152	4.820	
	Load (psi)	Collapse Strgth (psi)		Burst Load (psi)	Min Int Strgth (psi)		Load (kips)		S.F.
1	2844	3650	1.283	2844	4550	1.60	95.36	186	1.95 J

Prepared by MATTHEWS, Salt Lake City, Utah

Date

: Remarks

GREEN RIVER

Minimum segment length for the 6,152 foot well is 1,500 feet.

11-21-1996

SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas

temperature of 117°F (Surface 74°F, BHT 160°F & temp. gradient 1.400°/100 ft.)

String type: Production

The mud gradient and bottom hole pressures (for burst) are 0.462 psi/ft and 2,844 psi, respectively.

NOTE:

The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.07)

Michael O. Leavitt Governor Ted Stewart Executive Director

355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340 James W. Carter B01-359-3940 (Fax)
Division Director 801-538-5319 (TDD) 801-359-3940 (Fax)

November 21, 1996

Petroglyph Operating Company, Inc. P.O. Box 607 Roosevelt, Utah 84066

Ute Tribal 21-04 Well, 660' FNL, 660' FWL, NW NW, Sec. 21, Re: T. 5 S., R. 3 W., Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. API identification number assigned to this well is 43-013-31735.

Sincerely,

Associate Director

lwp

Enclosures

Duchesne County Assessor

Bureau of Land Management, Vernal District Office



Operator:	Petroglyph Operating Company, Inc.					
Well Name & Number: <u>Ute Tribal 21-04</u>						
API Number:	43-013-31735					
Lease:	14-20-H62-3516					
Location: <u>NW NW</u>	Sec21 T. 5 S. R. 3 W.					

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews at (801)538-5334 or Mike Hebertson at (801)538-5333.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN TRACECATE*

(Other instru

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

	DUDEALOE					'). LEASE DESIGNATION	AND SERIAL NO.
BUREAU OF LAND MANAGEMENT							14-20-H62-	3516
APPLICATION	APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BAC							OR TRIBE NAME
1a. TYPE OF WORK							UTE INDIA	
	LL X	DEEPEN		PLUC	G BAC	K 📙 📙	UNIT AGREEMENT 1	AMM
b. Type of Well			8	INGLE [7	MULTIPL	• — 	. FARM OR LEASE NA	
OIL X GA WELL X WI 2. NAME OF OPERATOR	ELL OTHER		z	DNR L	ZONE	_ <u></u>	UTE TRIBAL	M.S
	OPERATING CO.	TNC				<u> </u>	WELL NO.	
8. ADDRESS OF OPERATOR	JEERALING CO.	, INC.						
P 0 B0X 60	7, ROOSEVELT	. 11TAH 8	4066			-	#21-04 0. FEELD AND POOL, (D Witness
4. LOCATION OF WELL (Re				tate requirement	a.+)		ANTELOPE C	
660' FNL & 660' FWL NW/4NW/4							1. SEC., T., R., M., OR	
At proposed prod. zone		7 1/14/-71/	11/-2				AND SURVEY OR A	REA
At proposed prod. 2010	•		-				SEC. 21,	ጥናር ኮՉህ
14. DISTANCE IN MILES A	ND DIRECTION FROM NEA	REST TOWN OR POS	T OFFIC	£*			2. COUNTY OR PARISH	
23 2 MILES	SOUTHWEST OF	י אעייטא י	אמייו			3	DUCHESNE	UTAH
15. DISTANCE FROM PROPO	SED*	11110117		O. OF ACRES IN LI	EASE	17. NO. OF	ACRES ASSIGNED	JULIAN
LOCATION TO NEAREST PROPERTY OR LEASE LI		•	1	33.33		TO THIS	WELL 40	
TO' DISTANCE LEGN LEGIS				OPOSED DEPTH		20. ROTARY	OR CABLE TOOLS	
TO NEAREST WELL, DR OR APPLIED FOR, ON THE	ULLING, COMPLETED. S LEASE, FT.		i	6152'		ROTA		
21. ELEVATIONS (Show whe	ther DF, RT, GR, etc.)		1		1	1	22. APPROX. DATE WO	BE WILL START
6327.4' GR	ADED GROUND						SEPTEMBER,	1996
	JULU GROOND							·
		PROPOSED CAS	ING AN	CEMENTING P	ROGRAM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER I	TOOT	SETTING DEP			QUANTITY OF CEME	
12 1/4	8 5/8	24.0#	<u>250 '</u>					<u>+ 2% CaCl</u> 2
7 7/8	5 1/2	15.5#	6152'			/sx cellof		
-						•		GEL + 10%
•	i .	•		1				E ALL ZONE
							EREST (+ 10	
DDMDAGIN	'DII ODEDAMINA	GO TNO	5 T.T.				CEMENT (11	PPG ±) + COIL SHALE
	PH OPERATING	-						. OIL SHALE ITERVALS (+
	'ED OPERATOR OND # BO 4556) a vac	T METT		5% EXC	SCC)	ILEKANDS (T
*** 7 70 /			nd M	dnina	-	1/0 EVC	ESE)FCEN	7 5 0
pc: Utah Di	vision of Oi: of Indian Af:	I, Gas, a Faire Fo	mu m	ucheene	11+ 16		BAHABB	27
IIte Tri	be, Fort Duci	harra, IIt	ah	acheane,		/ <u>~</u>	TO CON MAN TITLE	346
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					Di Di	IV. OF OIL	GAS & MININ	G l
					<u> </u>			<u> </u>
IN ABOVE SPACE DESCRIBE	PROPOSED PROGRAM : If	proposal is to dec	pen or	olug back, cive da	ita on pre	esent produc	tive zone and propose	d new productive
zone. If proposal is to o	drill ør deepen directions	iliy, give pertiner	t data	on subsurface loca	ations and	i measured a	nd true vertical depti	s. Give blowout
preventer program, if any 24.	'· /			·				·
/Zel	l' with		_	.=			10 3	1006
BIGNED	c your	Т	TLE AC	ENT FOR	PETRO	GLYPH	DATE 10-3	-1330
(This space for Feder	ral of State office une)							
	/ 1	ر <u>-</u>						
PERMIT NO.	M//	-3/	A	Lestitiant Prefid		er —		
Land	al IK Vousto	<i>i</i>		Mineral Res	ources		DATE NOV 0	1 1996
APPROVED AY FINE CONTRACTOR	ALLAY YUULUIG	<u> </u>	TLE				PATE	

CONDITIONS OF APPROVAL APPLICATION FOR PERMIT TO DRILL

Company/Operator: Petroglyph Operating Company

Well N	Name &	Number: <u>Ute Tribal 21-04</u>
API N	umber:	43-013-31735
Lease	Number:	14-20-H62-3516
Locati	on: <u>NV</u>	/NW Sec. 21 T. 5S R. 3W
		NOTIFICATION REQUIREMENTS
Location Construction	-	at least forty-eight (48) hours prior to construction of location and access roads.
Location Completion	-	prior to moving on the drilling rig.
Spud Notice	→	at least twenty-four (24) hours prior to spudding the well.
Casing String and Cementing	-	at least twenty-four (24) hours prior to running casing and cementing all casing strings.
BOP and Related Equipment Tests	-	at least twenty-four (24) hours prior to initiating pressure tests.
First Production Notice	-	within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

COA's Page 2 of 9 Well: Ute Tribal 21-04

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative by the operator to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report <u>ALL</u> water shows and water-bearing sands to Tim Ingwell of this office **prior to** setting the next casing string or requesting plugging orders. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a 2M system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

COA's Page 3 of 9 Well: Ute Tribal 21-04

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

If conductor pipe is set it will be cemented to surface. If drive pipe is used it will be pulled prior to cementing surface casing.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the usable water zone identified at \pm 342 ft. or by setting the surface casing at \pm 392 ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to **TOP OF CEMENT** if the surface casing is set at \pm 392 ft. or it will be run to **SURFACE** if the surface casing is set at \pm 250 ft. and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

COA's Page 4 of 9 Well: Ute Tribal 21-04

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours **prior** to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

<u>Immediate Report</u>: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

COA's Page 5 of 9 Well: Ute Tribal 21-04

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

COA's Page 6 of 9 Well: Ute Tribal 21-04

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert (801) 789-4170 Petroleum Engineer

Ed Forsman (801) 789-7077 Petroleum Engineer

Jerry Kenczka (801) 789-1190 Petroleum Engineer

BLM FAX Machine (801) 781-4410

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spend solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

COA's Page 8 of 9 Well: Ute Tribal 21-04

SURFACE USE PLAN OF OPERATION

Conditions of Approval (COA's)

- 1. All vehicular traffic, personnel movement, construction and restoration operations should be confined to the areas examined, as referenced in report, and to the existing roadways and/or evaluated access routes.
- 2. All mitgation stipulations contained in the Bureau of Indian Affairs, combined site specific Environmental Analysis (EA) report shall be strictly adhered, during and after construction.
- 3. All personnel should refrain from collecting artifacts and from disturbing any significant cultural remains from subsurface deposits at are exposed or identified during construction.
- 4. The personnel from the Ute Tribe Energy & Minerals Department should be consulted, should cultural remains from subsurface deposits be exposed or identified during construction.
- 5. Upon completion of Application for Permit to Drill and Right-of-way, the Ute Tribe Energy & Minerals Resource Department will be notified by Petroglyph Operating Company so that a Tribal Technician can verify Affidavit of Completions.

Mitigation stipulations from the combined site specific Environmental Analysis.

- 1. Before the site is abandoned the company will be required to restore the well pad and access road to near their original state. The disturbed area will be reseeded with desirable perennial vegetation.
- 2. Noxious weeds will be controlled on all well sites and rights-of-way. If noxious weeds spread from the well sites or rights-of-way onto adjoining land, the company will also be responsible for their control.
- 3. The pipeline will be constructed to lay on the soil surface, and the right-of-way will not be bladed or cleared of vegetation.
 - Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way.
 - Where pipelines do not parallel roads but cross country between stations, they shall be welded in place at wellsites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- 4. An open drilling system shall be used. Reserve pits will be lined with impervious synthetic liners. Prior to backfilling the reserve pit all fluids will be pumped from the pit into trucks and hauled

COA's Page 9 of 9 Well: Ute Tribal 21-04

to approved disposal sites. When the reserve its are backfilled the surplus oil and mud, etc will be buried a minimum of 3.0 feet below the surface of the soil.

- 5. A closed production system will be used. Production fluids will be contained in leak proof tanks. All production fluids will be disposed of at approved disposal sites. The indiscriminate dumping of production fluids on roads, well sites or other areas will not be allowed.
- 6. Although the access roads have a 30 foot right-of-way the bladed area of the road will be limited to 21 feet in all areas except where deep cuts and fills are required, sharp turns are required, or at the intersections with other roads.
- 7. Prior to the commencing surveys or construction on the U&O Indian Reservation the operator and any of it's subcontractors, shall acquire access permits and business permits from the Ute Indian Tribe.
- 8. Prior to the commencement of construction, the operator shall notify the Ute Tribal Department of Energy and Minerals of the date construction shall begin.
- 9. Because the wellsite is located less than 1/2 mile but more than 1/4 mile from the active ferruginous hawk nest this wellsite will be constructed and drilled between August 15 and February 15.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: PETROGLYPH OPERATING
Well Name: UTE TRIBAL 21-04
Api No. 43-013-31735
Section 21 Township 5S Range 3W County DUCHESNE
Drilling Contractor UNION
Rig #: 16_
SPUDDED:
Date: 12/1/96
Time:
How: ROTARY
Drilling will commence:
Reported by: DEANNA BELL
Telephone #:
Date: 12/4/96 Signed: JLT

DIVISION OF OUR, GAS-AND MEMBER
ENTERY ACTION FORM - FORM 6

OPERATOR Petroglyph Operating Co., Inc.

AUDRESS P.O. Box 1839

Hutchinson, KS 67504-1839

OPERATOR ACCT. NO. # 3800

		,	/								
AC 110H	COMPENT CHILLY NO.	HEH ENTITY NO.	API NUNDER	WELL HAME	- 00	1 60	WELL_	focvito	 Ų	SPUD	EFFECTIVE
A	99999	12051	43-013-31735	Ute Tribal 21-04	NWNW NWNW	21	58	RG 3W	COUNTY Duchesne	11-30-96	DATE
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FORM	7	

Address:

STATE OF UTAH DIVISION OF OIL GAS AND MINING

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ن دمان	Det 2. 7. 1993	שו

Phone: (304) 4610

REPORT OF WATER ENCOUNTERED DURING DRILLI	
. Well name and number: U12 TEIST 21-04	DIV. OF OIL, GAS & MINI
API number: 43-013-31735	
Well Location: QQ NWNW Section 21 Township 55 Range 3W County Duches	sne
. Well operator: 2112062714	
Address: P.O. Box 1839	
Hutchinson, KS 67504-1839 Phone: (316	5) 665–8500
Drilling contractor: Chiou Doiceing	

5. Water encountered (attach additional pages as needed):

P.O. Drawer 40

Buckhannon, WV

26201

DE	тн	VOLUME	QUALITY
FROM	TO	(FLOW RATE OR HEAD)	(FRESH OR SALTY)
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6. Formation	tops:						
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If an analysis	has been ma	ade of the water	encountered, p	olease attach a	copy of the repo	ort to this form.	
i hereby certify	y that this re	port is true and	complete to the	e best of my kno	owledge. Dat	te: 12-6	1-96
Name & Signa	ature:	Miles			Title	e: Delle	-96

EQUIPMENT INVENTORY UTAH DIVISION OF OIL, GAS AND MINING STATE OF UTAH

Operator: PETROGLYPH	_ Lease:	State:	Federal:	: Ind	dian: <u>X</u>	Fee:
Well Name: <u>UTE TRIBAL #21-0</u>	4	<i>P</i>	PI Number	<u>43-0</u> 2	13-31735	
Section: 21 Township: 5S Ra Well Status: POW	nge <u>3W</u> Co _ Well T	unty <u>DUC</u> ype: Oil:	ESNE YES	Field:_ Gas:	ANTELOP	E CREEK
PRODUCTION LEASE EQUIPMENT:	(NUMBER)			_		
Boiler(s): Compres	sor(s):	Separa	tor(s):	Dehy	ydrator(s):
Shed(s): Line He	ater(s):_	(1) Heat	ed Separa	ator(s)	: V	RU:
Heater Treater(s):						
PUMPS:						
Triplex: Chemical	: C	entrifuga	1:_ (1) _			
LIFT METHOD:						
Pumpjack: YES Hydra	ulic:	Submer	sible:]	Flowing:	
GAS EQUIPMENT: (NUMBER)						
Purchase Meter: NO	Sales	Meter: <u>Y</u>	s			
TANKS:	NUMBER		Sl	IZE		
Oil Storage Tank(s):	N/A	_		· · · · · · · · · · · · · · · · · · ·	BBLS	
Water Tank(s):	N/A	_			BBLS	
Power Water Tank:		_			BBLS	
Condensate Tank(s):	W				BBLS	
Propane Tank: NONE						
Central Battery Location: (IF APPLIC	ABLE)				
Qtr/Qtr: NE/NWSection:_	<u>21 </u> Town	ship: <u>5S</u>	Range:_	<u>3W</u>		
REMARKS: ALL FUILDS PIPED (CENTRAL BATTERY. TRACE PUM						
Inspector: DENNIS L. ING	RAM			I	Date: <u>2/</u>	11/97

Form 3160-4 (November 1983) (formerly 9-330)

UMTED STATES

SUBMIT IN DUPLICATE.

Form approved. Budget Bureau No. 1004-0137 Expires August 31, 1985

T OF THE INTERIOR DEPARTM. ns on S. LEASE DESIGNATION AND SERIAL NO. BUREAU OF LAND MANAGEMENT 14-20-H62-3516 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG* Ute Indian Tribe IA TYPE OF WELL: WELL X GAS WELL 7. UNIT ACREEMENT NAME Other L TYPE OF COMPLETION: 14-20-H62-4650 DEEC-EN PLUG DACK WELL X DIFF. GENVR. S. PARM OR LEASE NAME Other 2. NAME OF OPERATOR Ute Tribal Petroglyph Operating Company, Inc. 9. WELL NO. 21-04 3. ADDRESS OF OPERATOR P. O. Box 1839, Hutchinson, KS 67504-1839 10. FIELD AND POOL, OR WILDCAT 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements Antelope Creek At surface 660' FNL & 660' FWL. NW NW II. SEC., T., R., M., OR BLOCK AND BURYEY At top prod. interval reported below Sec 21-T5S-R3W At total depth 6070' RTD 14. PERMIT NO 12. COUNTY OR PARISH DATE ISSUED 13. STATE 43-013-31735 Duchesne Utah 15. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.). 19. ELEV. CABINGHEAD 18. ELEVATIONS (DF, RKB. RT, GR, ETC.) 63271 11-30-96 12-6-96 1-3-97 20. TOTAL DEPTH, MD & TVD 21. FLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL. 23. INTERVALS ROTARY TOOLS CABLE TOOLS HOW MANTS DRILLED BY 6017' 24. PRODUCING INTERVAL(S), OF THIS COMPLETION-TOP, BOTTOM, NAME (MD AND TVD) 25. WAS DIRECTIONAL SURVEY MADE Green River 26. TYPE ELECTRIC AND OTHER LOGS RUN 27. WAS WELL CORED CNL, AIT 4-8-97 28, CASING RECORD (Report all strings set in well) CABING SIZE WEIGHT, LB./FT DEPTH SET (MD) HOLE SIZE CEMENTING RECORD AMOUNT PULLED 8-5/8 24# 257 12 - 1/4150 sx G Neat; 2% CaCl2 5-1/2 15.5# 6062 7-7/8 90 sx Hifill; 310 sx Thixotropic 29 LINER RECORD TUBING RECORD SIZE TOP (MD) BOTTOM (MD) SACKS CEMENTS SCREEN (MD) SIZE DEPTH SET (MD) PACKER SET (MD) 2-7/8 5817 31. PERFORATION RECORD (Interval, size and number) ACID. SHOT. FRACTURE, CEMENT SQUEEZE, ETC. 5690-98 (33 shots) 4837,38,39,40 (4 shots) EDEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED 5479-85 (25 shots) 4779-82 (4 shots LE) 5690-98 25600# prop 6881 gal fluid; 5445-51 (25 shots) 4741048 (8 shots LE) 5445-85 6283 gal fluid; 18900# prop 5139-44 (21 shots) 5139-44 3808 gal fluid; 14000# prop 4882, 83, 84, 85, 86 87 (6 shots LE) <u>4837–87</u> 3879 gal fluid; 13600# prop 33 * PRODUCTION 4741-82 <u>7211 qal</u> fluid; 26500# prop DATE FIRST PRODUCTION PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) WELL STATUS (Producing or shut-in) 1-29-97 pumping; $2-1/2 \times 1-3/4 \times 16 40 \text{ ring PA}$ WATER—BRE. DATE OF TEST HOURS TESTED CHOKE SIZE PROD'N. FOR OIL-BBL. GAS-MCF GAS-OIL BATIO 30 2-3-97 44 0 FLOW, TUBING PREAS. CASING PRESSURE CALCULATED 24-HOUR RATE WATER--HBL. OIL GRAVITY-API (CORE.) 34. DISPOSITION OF GAS (Bold, used for fuel, vented, etc.) TEST WITHESSED BY sold: used for fuel Dave Schreiner 35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information

SIGNED

plete and correct as determined from all available records

DATE 2-11-97

*(See Instructions and Spate) My ON ONE PROPERTY Side)

FORMATION			recoveries):			
	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.		TOP	ď
				NAME	MEAS, DEPTH	TRUE VERT. DEPTH
X Marker	4539					
Douglas Creek	4686					
B Limestone	2068	-			•	
Castle Peak	5630					
Carbonate	6043					
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April 2, 1997

Vicky Dyson State of Utah Division of Oil, Gas & Mining 1594 W. North Temple, Ste.1210 Salt Lake City, UT 84114

CONFIDENTIAL

Ms. Dyson:

Enclosed please find the logs listed below for the wells located in Duchesne County, Utah.

Well Name
Log
Ute Tribal 21-03
CNL, AIT
Ute Tribal 21-04
CNL, AIT 53 3ω 3/ 430/3 3×735

Please hold these in confidence as permitted in division guidelines.

I have received your request for logs on the 21-10. These logs were included in a group of logs being copied at Rileys. I called Rileys today. They mailed the logs to me on March 10; however, the logs have not yet arrived. A tracer has been placed on the package. The logs will be forwarded to you as quickly as possible. Thank you for your patience. If you need further information, please do not hesitate to call me at 316-665-8500.

Sincerely,

April Menzies

Petroleum Engineering/Geology Technician

boril Menzius

Form 3160-5 (August 1999)

NITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Evniver: November 30, 200

L	Daparos Trovolacer 50, 2000
	5. Lease Serial No. 1420H623516
I	6. If Indian, Allottee or Tribe Name

SUNDRYN	142011623516						
Do not use this abandoned well	form for proposals to . Use form 3160-3 (API	drill or to re⊣ D) for such pi	enter an roposals.		6. If Indian, Allottee or UTE INDIAN TR		
SUBMIT IN TRIP	LICATE - Other instruc	tions on reve	rse side.		7. If Unit or CA/Agrees 1420H624650	nent, Name and/or No.	
1. Type of Well Gas Well Othe	<u> </u>			-	8. Well Name and No. UTE TRIBAL 21-04		
2. Name of Operator PETROGLYPH OPERATING O	Contact:	MICHEAL SA E-Mail: msaffor	FFORD d@petroglyphene	rgy.com	9. API Well No. 43-013-31735		
3a. Address P.O. BOX 607 ROOSEVELT, UT 84066		3b. Phone No. Ph: 435.722 Fx: 435.722.	(include area code) 2.2531 9145		10. Field and Pool, or Exploratory ANTELOPE CREEK		
4. Location of Well (Footage, Sec., T.,	R., M., or Survey Description)			11. County or Parish, and State		
Sec 21 T5S R3W NWNW 660F	NL 660FWL				DUCHESNE CO	UNTY, UT	
12. CHECK APPR	OPRIATE BOX(ES) TO	O INDICATE	NATURE OF 1	NOTICE, R	EPORT, OR OTHER	DATA	
TYPE OF SUBMISSION							
☐ Notice of Intent	Acidize Dee				ion (Start/Resume)	■ Water Shut-Off	
Monce of Intent	☐ Alter Casing	☐ Fract	ure Treat	Reclam	ation	☐ Well Integrity	
Subsequent Report	☐ Casing Repair	□ New	Construction	☐ Recomp	olete	Other	
☐ Final Abandonment Notice	□ Change Plans	☐ Plug	and Abandon	☐ Tempor	arily Abandon	Workover Operations	
	Convert to Injection	☐ Plug	Back	□ Water I	Disposal		
testing has been completed. Final Absolutermined that the site is ready for fire the above referenced well was well was returned to production zones acidized 5445-51 and 5479-85 treated with 357 gallot 4882-87 treated with 357 gallot	nal inspection.) S acidized to improve pro n on 6/1/2002. With 2394 gallons 7.5% Hons 7.5% Hons 7.5% HCL with additional inspections.	oduction. World	kover began on	•	•	in the operator has	
14. I hereby certify that the foregoing is	true and correct. Electronic Submission # For PETROGLYPH	#12993 verified H OPERATING	by the BLM Wel COMPANY,, ser	l Information it to the Vern	System al		
Name (Printed/Typed) MICHEAL	Title COORI	DINATOR					
				,			
Signature (Electronic St			Date 07/23/2				
	THIS SPACE FO	DR FEDERA	L OR STATE	OFFICE	SE		
Approved By			Title	ľ	TECETY Date	ED	
Conditions of approval, if any, are attached certify that the applicant holds legal or equi which would entitle the applicant to conduct	table title to those rights in the et operations thereon.	e subject lease	Office		JUL 3 1 2002		
Title 18 U.S.C. Section 1001 and Title 43 U States any false, fictitious or fraudulent st	J.S.C. Section 1212, make it a atements or representations as	crime for any per to any matter wi	rson knowingly and thin its jurisdiction	willfully to m Of	ake WIMSION-OF L. GAS AND MI	gency of the United	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8 999 18TH STREET - SUITE 300 **DENVER, CO 80202-2466** Phone 800-227-8917 http://www.epa.gov/region08

DEC 3 0 2004

RECEIVED JAN 0 5 2005

DIV. OF OIL, GAS & MINING

Ref: 8P-W-GW

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Matt Corser District Engineer Petroglyph Operating Company, Inc. 4116 W 3000 South Ioka Lane P.O. Box 607 Roosevelt, UT 84066

Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY

RE:

Additional Well to Antelope Creek Area Permit

UIC Permit No. UT20736-00000

Well ID: UT20736-06521

Ute Tribal No. 21-04, Duchesne County, Utah

Dear Mr. Corser:

The Petroglyph Operating Company, Inc. (Petroglyph) request to convert a former Green River Formation oil well, the Ute Tribal No. 21-04, to an enhanced recovery injection well in the Antelope Creek Waterflood Area Permit is hereby authorized. The proposed injection well is within the exterior boundary of the Uintah & Ouray Indian Reservation, and the addition is being made under the authority of 40 CFR §144.33 (c) and the terms of Antelope Creek Waterflood Area Permit UT20736-00000. Unless specifically mentioned in the enclosed Authorization For An Additional Well, all terms and conditions of the original Area Permit will apply to the conversion, operation, monitoring, and plugging of the Ute Tribal No. 21-04.

Prior to receiving Environmental Protection Agency (EPA) authorization to inject, the EPA requires that Petroglyph submit for review and approval the following Prior to Commencing Injection requirements: (1) the results of a Part I (Internal) mechanical integrity test (MIT), (2) a pore pressure calculation of the injection interval, and (3) a completed EPA Form No. 7520-12 Well Rework Record.

EPA analysis of the Ute Tribal No. 21-04 CBL/GR indicates that adequate cement was placed in the well. The CBL confirms that the cement meets or exceeds minimum requirements needed to demonstrate injection zone isolation (at least 15' of continuous 80% bond or greater bond) through the confining zone interval from 4036' to 4054'. EPA has determined that the

cement in this well provides an effective barrier to significant upward movement of fluids through vertical channels adjacent to the wellbore, and further demonstration of Part II Mechanical Integrity is not required.

The initial Maximum Allowable Injection Pressure (MAIP) for the Ute Tribal No. 21-04 is 1780 psig. Pursuant to Part II. Section C. Condition No. 4 of Area Permit UT20736-00000, the initial surface injection pressure shall not exceed 1900 psig and Part II.C.4 also provides the opportunity for the permittee to request an increase or decrease in the initial MAIP based upon results of a step rate test that demonstrates the formation breakdown pressure will not be exceeded.

Please be aware that Petroglyph does not have authorization to begin injection into the Ute Tribal 21-04 until all <u>Prior to Commencing Injection</u> requirements listed above have been submitted and evaluated by the EPA, and Petroglyph has received written authorization from the EPA to begin injection.

If you have any questions, please call Mr. Dan Jackson at (303) 312-6155 or 1.800.227.8917 (Ext. 6155). Please submit the required data to <u>ATTENTION: DAN</u> JACKSON, at the letterhead address, citing <u>MAIL CODE: 8P-W-GW</u> very prominently.

Sincerely,

Stephen S. Tuber

Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance

Carl A. Carpbell for

encl:

Authorization For Conversion of An Additional Well EPA Form No. 7520-12 (Well Rework Record) Schematic Diagram: Conversion of Ute Tribal #21-04 Guidance No. 37: Mechanical Integrity External

cc: without enclosures

Maxine Natchees, Chairperson Uintah & Ouray Business Committee Ute Indian Tribe P.O. Box 190 Fort Duchesne, UT 84026 Chester Mills
BIA - Uintah & Ouray Indian Agency
P.O. Box 130
Fort Duchesne, UT 84026

cc: with enclosures;

Elaine Willie
Environmental Coordinator
Ute Indian Tribe
P.O. Box 460
Fort Duchesne, UT 84026

Gil Hunt Technical Services Manager Utah Division of Oil, Gas, and Mining 1594 West North Temple - Suite 1220 Salt Lake City, UT 84114-5801

Ed Forsman Sr. Petroleum Engineer BLM - Vernal District 170 South 500 East Vernal, UT 84078

Nathan Wiser, 8ENF-UFO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08

AUTHORIZATION FOR ADDITIONAL WELL

ANTELOPE CREEK WATERFLOOD AREA PERMIT NO: UT20736-00000

The Environmental Protection Agency (EPA) authorizes the inclusion of an additional enhanced recovery injection well to the Antelope Creek Waterflood Area Permit No. UT20736-00000, as authorized by 40 CFR §144.33 (c). The additional well is described as:

Well Name:

Ute Tribal 21-04

EPA Well ID Number:

UT20736-06521

Surface Location:

660' FWL & 660' FNL

NWNW Sec. 21 - T5S - R3W

Duchesne County, Utah.

This well is subject to all provisions of the original Antelope Creek Waterflood Area Permit No. UT20736-00000, and subsequent Modifications, unless specifically detailed below:

UNDERGROUND SOURCE OF DRINKING WATER (USDW):

The base of the USDWs in the Ute Tribal 21-04 occurs within the Uinta Formation at approximately 1280' below ground level. The source for the location of the base of the USDWs is the STATE OF UTAH PUBLICATION NO. 2, BASE OF MODERATELY SALINE GROUND WATER IN THE UINTA BASIN, UTAH. Surface casing was set at 205' KB and cemented to the surface.

WATER ANALYSES:

Produced Green River Formation Water: 6,818 mg/l TDS

Additional Water Source: 689 mg/l TDS (Johnson Water District)

Additional Water Source: 9003 mg/l TDS (From Ground Water Wells in Section 8 at

approximately 500-600' deep)

Blended Injectate: 3,922 mg/l TDS

CONFINING ZONE:

In the Antelope Creek Field area, the Confining Zone for the Green River waterflood is identified as a unit of slightly silty black impervious shale that directly overlies the top of the "B"

Marker of the upper Green River Formation. Above the Confining Zone in the upper Green River Formation, additional impermeable lacustrine shales provide further protection for any overlying USDW. In the Ute Tribal No. 21-04 well, the impervious black shale Confining Zone is approximately eighteen (18) feet thick and it occurs between the depths of 4036' to 4054'.

EPA analysis of the Ute Tribal No. 21-04 CBL/GR indicates that adequate cement was placed in the well. The CBL confirms that the cement meets or exceeds minimum requirements needed to demonstrate zone isolation (at least 15' of continuous 80% bond, or better) through the Green River Formation confining zone. The CBL for this well shows 18' of 80% bond or greater bond through the interval from 4036' to 4054'. EPA has determined that the cement in this well provides an effective barrier to significant upward movement of fluids through vertical channels adjacent to the wellbore pursuant to 40 CFR 146.8 (a) (2). Therefore further testing for Part II (External) Mechanical Integrity is not required at this time.

INJECTION ZONE:

The Antelope Creek Waterflood Final Area Permit, Effective July 12, 1994, authorized injection into the Green River Formation. The operator proposes to inject water into multiple lenticular sands which are distributed throughout the Green River Formation. These sands are individually separated by shale which act as isolation barriers (secondary confining zones) for the waterflood.

The gross correlative Green River Formation enhanced injection recovery interval for the Ute Tribal No. 21-04 is from the base of the confining zone at 4054' to the top of the Basal Carbonate Formation at 6043'.

Lithologically, the gross authorized enhanced recovery injection interval is fluvial and lacustrine shale, fluvial and lacustrine sandstone, lacustrine marlstone and limestone. The Uinta and Green River Formations are predominantly non-lacustrine fluvial shale and sandstone deposited on the basin margins, whereas lacustrine deposition predominates in the central basin area for these two formations.

WELL CONSTRUCTION: Ute Tribal No. 21-04.

SURFACE CASING: 8-5/8" casing is set at 205' in a 12-1/4" hole, using 150 sacks of Class "G" cement circulated to the surface. The base of the USDW is approximately 1280' from ground level.

LONGSTRING: CASING 5-1/2" casing is set at 6062' ground level (GL) in a 7-7/8" hole with a plugged back total depth of 6,017', and cemented with 445 sacks of Premium Lite II mixed with 50/50 Pozmix.

The operator identifies the top of cement at 2500' KB. EPA analysis of the CBL/GR shows 18' of 80% bond or greater bond through the interval from 4036' to 4054' and the shallowest interval of 80% cement bond is from 3850' to 5961' in the Green River Formation.

CONSTRUCTION REQUIREMENTS:

Tubing and Packer:

(Condition 3)

For injection purposes, the Ute Tribal 21-04 will be equipped with 2-3/8" tubing with a packer to be set at a depth no higher than 100' above the top perforation, i.e., 4741'.

Formation Testing and Logging

(Condition 6)

(a) Upon conversion of the Ute Tribal 21-04 and prior to injection, the operator is required to determine and submit to the EPA the injection zone fluid pore pressure (static bottom hole pressure).

CORRECTIVE ACTION:

As of October 2004, the following one (1) active Green River oil production well is within or proximate to the one-quarter (1/4) mile radius around the Ute Tribal No. 21-04. No Corrective Action is required.

Green River Injection Well:

Ute Tribal No. 21-04D:

SE NW Sec. 21-T5S-R3W

The owner/operator is required to inspect the surface of this location for fluid leaks on a monthly basis. Observation of surface leakage may be considered as noncompliance with the Permit, injection operations shall be suspended immediately, and shall stay suspended until the noncompliance has been resolved and written approval to resume injection has been received from the Director.

PART II. C. WELL OPERATION

PRIOR TO COMMENCING INJECTION (ADDITIONAL WELLS)

(Condition 2)

This document is being issued without authority to inject. Prior to beginning injection, the operator is required to submit the following information for EPA review and written approval:

- A successful mechanical integrity test (MIT) demonstrating Part I Internal MI,
- Pore pressure calculation of the proposed injection zone, and
- completed EPA Form No. 7520-12 (Well Rework Record, enclosed).

Please be advised that all tests must be conducted following current EPA Guidelines. Deviations from those Guidelines, without written approval of the Director, may result in denial of the survey/test.

INJECTION INTERVAL

(Condition 4)

Injection is limited to the gross Green River Formation "B" marker at 4054' to the top of the Basal Carbonate Member of the Green River Formation, estimated to be 6043' KB in this well.

INJECTION PRESSURE LIMITATION

(Condition 5)

The initial Maximum Allowable Injection Pressure (MAIP) for the Ute Tribal No. 21-04 is 1780 psig. Pursuant to Part II. Section C. Condition No. 4 of Area Permit UT20736-00000, the initial surface injection pressure shall not exceed 1900 psig and Part II.C.4 also provides the opportunity for the permittee to request an increase or decrease in the initial MAIP based upon results of a step rate test that demonstrates the formation breakdown pressure will not be exceeded.

MIP = [FG - (0.433)(SG)] * D

FG = 0.92 psi/ft - Average value of four (4) submitted fracture treatment data

SG = 1.005

D = 4741' (top perforation)

MIP = [0.81 - (0.433)(1.005)] * 4741'

MIP = 1777 psig (Round up to 1780 psgi)

DEMONSTRATION OF FINANCIAL RESPONSIBILITY:

(Condition 1)

The applicant has chosen to demonstrate financial responsibility via a Surety Bond that has been reviewed and approved by the EPA.

REPORTING OF NONCOMPLIANCE:

(Condition 10)

- (a) <u>Anticipated Noncompliance</u>. The operator shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (b) <u>Compliance Schedules</u>. Reports of compliance or noncompliance with, or any progress on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted <u>no later than thirty (30) days following each schedule date.</u>
- (c) Written Notice of any noncompliance which may endanger health or the environment shall be reported to the Director within five (5) days of the time the operator becomes aware of the noncompliance. The written notice shall contain a description of the noncompliance and its cause; the period of noncompliance including dates and times; if the noncompliance has not been corrected the anticipated time it is expected to continue; and steps taken or planned tp prevent or reduce recurrence of the noncompliance.

Twenty-Four Hour Noncompliance Reporting:

(Condition 11)

The operator shall report to the Director any noncompliance which may endanger

health or environment. Information shall be provided, either orally or by leaving a message, within twenty-four (24) hours from the time the operator becomes aware of the circumstances by telephoning 1.800.227-8917 and asking for the EPA Region 8 UIC Program Compliance and Enforcement Director, or by contacting the Region 8 Emergency Operations Center at 303.293.1788 if calling from outside EPA Region 8. The following information shall be included in the verbal report:

- (a) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW.
- (b) Any noncompliance with a Permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

Oil Spill and Chemical Release Reporting:

(Condition 12)

The operator shall comply with all other reporting requirements related to oil spills and chemical releases or other potential impacts to human health or the environment by contacting the National Response Center (NRC) 1.800.424.8802 or 202.267.2675, or through the NRC website at http://www.nrc.uscg.mil/index.htm.

Other Noncompliance:

(Condition 13)

The operator shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in Part III. 10, c, ii. of this Permit.

Other Information:

Where the operator becomes aware that he failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application, or in any report to the Director, the operator shall submit such correct facts or information within two (2) weeks of the time such information became known to him.

APPENDIX C.

PLUGGING AND ABANDONMENT:

The Plugging and Abandonment (P&A) Plan (Application Attachment Q-2) submitted by the applicant has been reviewed by the EPA. The P&A Plan is consistent with EPA requirements to protect all USDWs. The permittee shall place 9.2 ppg plugging gel or bentonite mud between all cement plugs.

- PLUG NO. 1: Set a cast iron bridge plug (CIBP) at 4700'. Set a minimum 50' Class. "G" cement plug on top of the CIBP.
- PLUG NO. 2: Set a minimum 100' cement plug inside of the 5-1/2" casing from at least 2918' to at least 3018' over a water zone.

PLUG NO. 3: Set a cement plug on the inside of the 5-1/2" casing, from at least 50' above to at least 50' below surface casing.

PLUG NO. 4: Set a cement plug, on the backside of the 5-1/2" casing, from surface to a depth of at least 50'.

(See attached Schematic.)

Cut off 8-5/8" and 5-1/2" casing at least 4' below ground level and set P&A marker, submit Sundry Notices and all necessary data to the Ute Tribe, the BLM and DOGM as required.

This AUTHORIZATION FOR ADDITIONAL WELL is effective upon signature.

DEC 3 0 2004

Stephen S. Tuber

Assistant Regional Administrator

Office of Partnerships and Regulatory Assistance

Ute Tribal 21-04 Proposed Wellbore Diagram

Well History:

11/30/1996 Spud Well

Top of Green River formation at 1630'. No USDW found in

the Green River formation.

80% Bond

3850-Log 70

Petroglyph Operating Co., Inc.

Ute Tribal #21-04 (660' FNL & 660' FWL) NW NW Section 21-T5S-R3W Antelope Creek Field Duchesne Co. Utah

API #43-013-31735 ; LEASE #14-20-H62-3516

GL: 6327.4 KB: 6337.4

Surface Hole Size 12 1/4"

8 5/8" 24# Surface CSG @ 205' KB cmt'd w/150 sx

Tubing: 2 3/8" 4.7#

J-55

- Hole Size 7 7/8" bit

- 7280 Base (/SDWs Cement top @ 2500' KB 5 1/2" 15.5# K-55 CSG

4036-4054 Confining Zona

Injection Packer @ 4132'

Perfs:

B6 4232 to 4240

C05 4741 to 4748'.

C05.2 4779 to 4782'.

C05.5 4837 to 4840'.

C06.T 4882 to 4887'.

5139 to 5144'. D3

5445 to 5451'. D09

D09 5479 to 5485'.

D10 5514 - 23 & 5535 - 39

E01.2 5690 to 5698'.

PBTD @ 6017' TD @ 6071' KB

(Not to Scale) - 6043 Baszi Carbon ate

Tops (KB):

A3

1289 ft

8 mkr Green River 4060 ft 1650 ft

BSCARB

6043 ft

A8 (Mhgny Shale equiv.)2968 ft

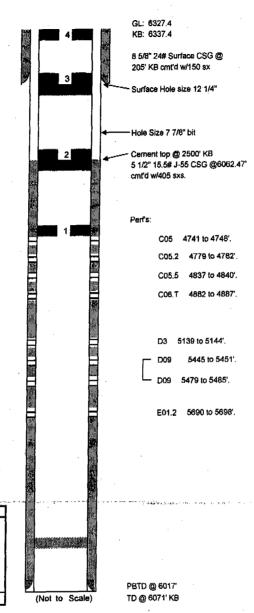
Plug 1 - 50' of Class G cement on top of CIBP. CIBP set at +/- 4700' KB.

Plug 2 - 2918' to 3018' covering A8

Plug 3 - 50' above and below surface pipe

Plug 4 - 50' to surface

 $9.2\ ppg$ plugging mud or bentonite mud in the well between plugs.



Petroglyph Operating Co., Inc.

Ute Tribal #21-04 (660' FNL & 660' FWL) NW NW Section 21 - 5S - 3W Antelope Creek Field Duchesne Co. Utah

API #43-013-31735; LEASE #14-20-H62-3516



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 300 DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 37

Demonstrating Part II (external) Mechanical Integrity

for a Class II injection well permit.

FROM:

Tom Pike, Chief

UIC Direct Implementation Section

TO:

All Section Staff

Montana Operations Office

During the review for a Class II injection well permit, consideration must be given to the mechanical integrity (MI) of the well. MI demonstrates that the well is in sound condition and that the well is constructed in a manner that prevents injected fluids from entering any formation other than the authorized injection formation.

A demonstration of MI is a two part process:

- PART I INTERNAL MECHANICAL INTEGRITY is an assurance that there are no significant leaks in the casing/tubing/packer system.
- PART II EXTERNAL MECHANICAL INTEGRITY demonstrates that after fluid is injected into the formation, the injected fluids will not migrate out of the authorized injection interval through vertical channels adjacent to the wellbore.

A Class II injection well may demonstrate <u>Part II</u> MI by showing that injected fluids remain within the authorized injection interval. This may be accomplished as follows:

- 1) Cement bond log showing 80% bond through the an appropriate interval (Section Guidance 34),
- 2) Radioactive tracer survey conducted according to a EPA-approved procedure, or
- 3) Temperature survey conducted according to a EPA-approved procedure (Section Guidance 38).

For each test option above, the operator of the injection well should submit a plan for conducting the test. The plan will then be approved (or modified and approved) by EPA. EPA's preapproval of the testing method will assure the operator that the

test is conducted consistent with current EPA guidance, and that the test will provide meaningful results.

Part II MI may be demonstrated either before or after issuing the Final Permit. However, if Part II is to be demonstrated after the Final Permit is issued, a provision in the permit will require the demonstration of Part II MI. The well will also be required to pass Part II MI prior to granting authorization to inject.

Radioactive tracer surveys and temperature surveys require that the well be allowed to inject fluids as part of the procedure. In these cases, a well that has shown no other demonstration of Part II MI will be allowed to inject only that volume of fluid that is necessary to conduct the appropriate test.

After the results of the test proves that the well has passed Part II MI, the well will be given authorization to begin full injection operations.

If any of the tests show a lack of Part II MI, the well will be repaired and retested, or plugged (See Headquarters Guidance #76).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

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I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND	OFFICIAL	TITLE	(Please	type	or prii	nt,
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SIGNATURE

DATE SIGNED

Mechanical Integrity Test Casing or Annulus Pressure Mechanical Integrity Test U.S. Environmental Protection Agency Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW 999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness:			Date:			
Test conducted by:			·			
Others present:						
			m FR CWD	C+.	AC TA	IIC .
Well Name:			Type: ER SWD	Su	atus: AC TA	· UC
Field: Sec:	T N	/ C D	F /W County		State:	i
		/ O K	_E / W Comiy			
Operator:/		num Allow	able Pressure:		P	SIG
Last will.						-
Is this a regularly schedu	led test? []	Yes [] No	•		
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	rework? []]					فـــا
Well injecting dur	ring test? []	Yes [] No If Yes, rate	;: <u></u> -		_ opa
Pre-test casing/tubing annulu	s pressure:	· ·	psig	٠		
I 10-1001 00000 00000						
MIT DATA TABLE	Test #1		Test #2		Tes	t #3
TUBING	PRESSU	RE		.,	german en en egraf	1,2388, 178
Initial Pressure		psig		psig		psig
End of test pressure		psig		psig		psig
CASING / TUBING	ANNUL	US	PRESSURE			·
0 minutes		psig		psig		psig
5 minutes		psig		psig		psig
l		psig		psig		psig
10 minutes			\$00 To 100 To	psig	Called A. Common and Street Server, specificated September 1997	were the second of the second
15 minutes		psig			<u> </u>	psig
20 minutes		psig		psig	<u> </u>	psig
25 minutes		psig	 	psig	<u> </u>	psig
30 minutes		psig		psig		psig
minutes		psig		psig		psig
minutes	<u> </u>	psig		psig		nsig
RESULT	[] Pass	Fail	Pass []	Fail	[] Pass	[]Fail

Does the annulus pressure build back up after the test? [] Yes [] No



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08
JAN 2 5 2005

Ref: 8P-W-GW

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Mr. Matt Corser District Engineer Petroglyph Operating Company, Inc. 4116 W 3000 South Ioka Lane P.O. Box 607 Roosevelt, UT 84066

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY



RE:

AUTHORIZATION TO INJECT

Ute Tribal No. 21-04

EPA Well ID: UT20736-06521

EPA UIC Area Permit No. UT20736-00000

Dear Mr. Corser:

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 21-04 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). The "Prior To Commencing Injection" requirements of <u>Authorization for Additional Well UT20736-06521</u>, for the Ute Tribal No. 21-04 injection well, required well owner and operator Petroglyph Operating Company, Inc. to submit the following information to the Director:

- A successful mechanical integrity test (MIT) demonstrating Part I Internal MI,
- Pore pressure calculation of the proposed injection zone, and
- completed EPA Form No. 7520-12.

All required information has been submitted, and has been reviewed and approved by the EPA. Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal No. 21-04 enhanced recovery injection well under the

conditions of <u>Authorization for Additional Well UT20736-06521</u> and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

As of this approval, responsibility for permit compliance and enforcement is transferred to the Region 8 UIC Technical Enforcement Program office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing your well and UIC Permit number on all correspondence regarding this well.

Technical Enforcement Program - UIC U.S. EPA Region 8, Mail Code 8ENF-UFO 999 18th Street, Suite 300 Denver, Colorado 80202-2466

The Director has determined that the maximum allowable surface injection pressure (MAIP) for the Ute Tribal No. 21-04 shall not exceed <u>1777</u> psig. Please be reminded that it is the responsibility of the owner/operator to be aware of, and to comply with, all conditions of <u>Authorization for Additional Well UT20736-06521</u> and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

If you have any questions regarding this Authorization, please call Dan Jackson of my staff at (303) 312-6155. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, the UIC Technical Enforcement Program may be reached by calling (800) 227-8917.

Sincerely,

Sandra A. Stavnes

Director

Ground Water Program

cc: Maxine Natchees, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, UT 84026

Chester Mills
BIA - Uintah & Ouray Indian Agency
P.O. Box 130
Fort Duchesne, UT 84026

Elaine Willie Environmental Coordinator Ute Indian Tribe P.O. Box 460 Fort Duchesne, UT 84026

Gil Hunt Technical Services Manager Utah Division of Oil, Gas, and Mining 1594 West North Temple - Suite 1220 Salt Lake City, UT 84114-5801

Ed Forsman Sr. Petroleum Engineer BLM - Vernal District 170 South 500 East Vernal, UT 84078

Nathan Wiser, 8ENF-UFO

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OU. GAS AND MINING

FORM 9

SIGNATURE (CULLEE)	Duvern	DATE 1-27-0	5
NAME (PLEASE PRINT)	c Duncan	TITLE Product	ion Asst.
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			ion well to support
	OMPLETED OPERATIONS. Clearly show	all pertinent details including dates, depths, vol	400
01-15-2005	COMMINGLE PRODUCING FORMATIO		OTHER:
(Submit Original Form Only) Date of work completion:	CHANGE WELL STATUS	PRODUCTION (START/RESUME)	WATER SHUT-OFF
SUBSEQUENT REPORT	CHANGE VELL NAME	PLUG AND ABANDON PLUG BACK	VENT OR FLARE WATER DISPOSAL
, ———	CHANGE TO PREVIOUS PLANS CHANGE TUBING	OPERATOR CHANGE	TUBING REPAIR
Approximate date work will start:	CASING REPAIR	MEW CONSTRUCTION	TEMPORARILY ABANDON
(Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL
NOTICE OF INTENT	ACIDIZE	DEEPEN DEEPEN	REPERFORATE CURRENT FORMATION
TYPE OF SUBMISSION	ROPRIATE BOXES TO INDIC	TYPE OF ACTION	POKT, OR OTHER DATA
	WNM, SEC 21, T55, R3		UTAH
QTR/QTR, SECTION, TOWNSHIP, RAI	NGE, MERIDIAN:		STATE:
COMTAMED AT CHINEAME.	FNL 660FWL		COUNTY: Duchesne
4. LOCATION OF WELL SEC	NROOSEVELY STATE UT 21, TSS, B3W	ZIP 0 10 00 1933 - 12 2 2 3 3	si Antelope Creek
3. ADDRESS OF OPERATOR:))' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:
2. NAME OF OPERATOR: PLYCO	aluph Operatina (` o .	9. API NUMBER: 43-013-31735
OIL WELL	[] GAS WELL [OTHE	R Injection Well.	- UteTribal 21-04
Do not use this form for proposals to drill drill horizontal I	1420 H624650 8. WELL NAME and NUMBER:		
			7. UNIT OF CA AGREEMENT NAME:
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME;		
	DIVISION OF OIL, GAS AND	MINING	5. LEASE DESIGNATION AND SERIAL NUMBER:

(5/2000)

(See Instructions on Reverse Side)

DIV. OF OIL, GAS & MINING

JAN 3 1 2005



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08

JAN 2 K room

Ref: 8P-W-GW

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Mr. Matt Corser District Engineer Petroglyph Operating Company, Inc. 4116 W 3000 South Ioka Lane P.O. Box 607 Roosevelt, UT 84066

RE: AUTHORIZATION TO INJECT

Ute Tribal No. 21-04

EPA Well ID: UT20736-06521

EPA UIC Area Permit No. UT20736-00000

Dear Mr. Corser:

ţ

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 21-04 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). The "Prior To Commencing Injection" requirements of <u>Authorization for Additional Well UT20736-06521</u>, for the Ute Tribal No. 21-04 injection well, required well owner and operator Petroglyph Operating Company, Inc. to submit the following information to the Director:

- A successful mechanical integrity test (MIT) demonstrating Part I Internal MI,
- Pore pressure calculation of the proposed injection zone, and
- completed EPA Form No. 7520-12.

All required information has been submitted, and has been reviewed and approved by the EPA. Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection into the Ute Tribal No. 21-04 enhanced recovery injection well under the

conditions of <u>Authorization for Additional Well UT20736-06521</u> and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

As of this approval, responsibility for permit compliance and enforcement is transferred to the Region 8 UIC Technical Enforcement Program office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing your well and UIC Permit number on all correspondence regarding this well.

Technical Enforcement Program - UIC U.S. EPA Region 8, Mail Code 8ENF-UFO 999 18th Street, Suite 300 Denver, Colorado 80202-2466

The Director has determined that the maximum allowable surface injection pressure (MAIP) for the Ute Tribal No. 21-04 shall not exceed <u>1777</u> psig. Please be reminded that it is the responsibility of the owner/operator to be aware of, and to comply with, all conditions of <u>Authorization for Additional Well UT20736-06521</u> and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

If you have any questions regarding this Authorization, please call Dan Jackson of my staff at (303) 312-6155. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, the UIC Technical Enforcement Program may be reached by calling (800) 227-8917.

Sincerely,

Sandra A. Stavnes

Director

Ground Water Program

cc: Maxine Natchees, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, UT 84026

Chester Mills BIA - Uintah & Ouray Indian Agency P.O. Box 130 Fort Duchesne, UT 84026 Elaine Willie Environmental Coordinator Ute Indian Tribe P.O. Box 460 Fort Duchesne, UT 84026

Gil Hunt Technical Services Manager Utah Division of Oil, Gas, and Mining 1594 West North Temple - Suite 1220 Salt Lake City, UT 84114-5801

Ed Forsman Sr. Petroleum Engineer BLM - Vernal District 170 South 500 East Vernal, UT 84078

Nathan Wiser, 8ENF-UFO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

SEP 26 2008

Ref: 8ENF-UFO

CERTIFIED MAIL 7001-2510-0006-3202-2139 RETURN RECEIPT REQUESTED

Patti Cox District Office Manager Petroglyph Operating, Inc. 4116 West 3000 South Ioka Lane P.O. Box 607 Roosevelt, Utah 84066 Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

43 613 31735 55 3W 21

Re:

Underground Injection Control (UIC)
Permission To Resume Injection
Ute Tribal # 21-04 Well
EPA Permit # UT20736-06521
Antelope Creek Oil Field
Duchesne County, Utah

Dear Ms. Cox:

On September 25, 2008, EPA received information from Petroglyph Operating, Inc. on the above referenced well concerning the workover to clean out the well and the follow up mechanical integrity test (MIT) conducted on September 18, 2008. The data submitted shows that the well passed the required MIT. Therefore, pursuant to Title 40 of the Code of Federal Regulations Section 144.51(q)(2) (40 C.F.R. §144.51(q)(2)), permission to resume injection is granted. Under continuous service, the next MIT will be due on or before September 18, 2013.

Pursuant to 40 C.F.R. §144.52(a)(6), if the well is not used for a period of at least two (2) years ("temporary abandonment"), it shall be plugged and abandoned unless EPA is notified and procedures are described to EPA ensuring the well will not endanger underground sources of drinking water ("non-endangerment demonstration") during its continued temporary abandonment. A successful MIT is an acceptable non-endangerment demonstration and would be necessary every two (2) years the well continues in temporary abandonment.

Failure to comply with a UIC Permit, or the UIC regulations found at 40 C.F.R. Parts 144 through 148 constitute one or more violations of the Safe Drinking Water Act, 42 U.S.C. §300h. Such non-compliance may subject you to formal enforcement by EPA, as codified at 40 C.F.R. Part 22.

RECEIVED
OCT 0-1 2008

If you have any questions concerning this letter, you may contact Nathan Wiser at (303) 312-6211. <u>Please direct all correspondence to the attention of Nathan Wiser at Mail Code 8ENF-UFO.</u>

Sincerely,

Director

Technical Enforcement Program

cc: Curtis Cesspooch, Chairman
Uintah & Ouray Business Committee
P.O. Box 190
Fort Duchesne, Utah 84026

Shaun Chapoose, Land Use Department Director Ute Indian Tribe P.O. Box 460 Fort Duchesne, Utah 84026

Gil Hunt Utah Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, Utah 84114

	5.LEASE DESIGNATION AND SERIAL NUMBER:						
	DIVISION OF OIL, GAS, AND MIN		14-20-H62-3516				
SUNDF	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: ANTELOPE CREEK				
1. TYPE OF WELL Water Injection Well			8. WELL NAME and NUMBER: UTE TRIBAL 21-04				
2. NAME OF OPERATOR: PETROGLYPH OPERATING (co		9. API NUMBER: 43013317350000				
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	500 , Boise, ID, 83703	PHONE NUMBER: 208 685-7685 Ext	9. FIELD and POOL or WILDCAT: ANTELOPE CREEK				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0660 FNL 0660 FWL			COUNTY: DUCHESNE				
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: NWNW Section:	HIP, RANGE, MERIDIAN: 21 Township: 05.0S Range: 03.0W Mer	idian: U	STATE: UTAH				
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
	ACIDIZE	ALTER CASING	CASING REPAIR				
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
3/30/2015	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION				
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK				
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	✓ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL				
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION				
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:				
12. DESCRIBE PROPOSED OR		Il pertinent details including dates, o	depths, volumes, etc.				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. On or about 3/30/2015, depending on equipment availability, Petroglyph Operating plans to work-over and re-perforate the referenced well. We plan to release the packer and pull all tubing, scan log on the way out, lay down all bad pipe, make a bit and scraper run to PBTD and circulate the well. Existing perforations are as follows: 5698-02, 5520-24, 5479-85, 5445-51, 5139-44, 4882-87, 4837-40, 4779-82 & 4741-48. We will re-perforate existing perforations and add new perforations. We plan to shoot the following: 5684-5703, 5535-40, 5514-24, 5476-86, 5443-56, 5149-53, 5138-46, 4882-86, 4835-72, 4776-84 & 4740-49. We will break down perfs, test their injection rates, run in with an Arrowset 1 Packer and perform a Mechanical Integrity Test. Injection will resume after EPA Approval is received. Guns: Titan 3-1/8" cont 22.7 gram charges, 0.42"EHD, 23.54" TTP @ 4 SPF @ 120* phased.							
NAME (PLEASE PRINT) Rodrigo Jurado	PHONE NUMB 435 722-5302	ER TITLE Regulatory & Compliance S	Эрс				
SIGNATURE		DATE					
l N/A		3/24/2015					

Sundry Number: 62515 API Well Number: 43013317350000

	STATE OF UTAH		FORM 9						
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-H62-3516						
SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR T									
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME: ANTELOPE CREEK						
1. TYPE OF WELL Water Injection Well			8. WELL NAME and NUMBER: UTE TRIBAL 21-04						
2. NAME OF OPERATOR: PETROGLYPH OPERATING O	xo		9. API NUMBER: 43013317350000						
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	500 , Boise, ID, 83703	PHONE NUMBER: 208 685-7685 Ext	9. FIELD and POOL or WILDCAT: ANTELOPE CREEK						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0660 FNL 0660 FWL			COUNTY: DUCHESNE						
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 21 Township: 05.0S Range: 03.0W Me	ridian: U	STATE: UTAH						
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOF	RT, OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
	ACIDIZE	ALTER CASING	CASING REPAIR						
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME						
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION						
4/9/2015									
	OPERATOR CHANGE	PLUG AND ABANDON	LI PLUG BACK						
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION						
	▼ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	L TEMPORARY ABANDON						
DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL						
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION						
	WILDCAT WELL DETERMINATION	OTHER	OTHER:						
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. On 3/26/2015 we rigged up, released the packer, pulled the tubing and scan logged on the way out. We laid down 121 joints. We picked up new tubing, made a bit and scraper run to PBTD, 5955' then circulated and cleaned the well. We then ran in hole and re-perforated the following: 5,684'-5,703', 5,535'-40', 5,514'-24', 5,476'-86', 5,443'-56', 5,149'-53', 5,138'-46', 4,882'-86', 4,835'-42', 4,776'-84', 4,740'-49'. We isolated various intervals, broke down perfs then pulled all tools and ran in with a new Arrowset 1 Packer and new tubing, breaking and doping all joints on the way in. We set the packer, pressure tested the tubing and successfully performed an MIT on the casing to 1800 psi with no loss. Perforations were made using were Titan 3-1/8" perf guns containing 19 grams charges, 0.44" EHD, 23.54" TTP, 4 SPF @ 120° Phased. MIT has been submitted to EPA for approval to resume injection									
NAME (PLEASE PRINT) Rodrigo Jurado	PHONE NUMB 435 722-5302		TITLE Regulatory & Compliance Spc						
SIGNATURE N/A		DATE	DATE 4/13/2015						



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

MAY 0 6 2015

Ref: 8ENF-UFO

MAY 11 2015
DIV. OF OIL, GAS& MINING

CERTIFIED MAIL 7009-3410-0000-2599-4944 RETURN RECEIPT REQUESTED

Mr. Les Farnsworth, District Supervisor Petroglyph Operating Company, Inc. 4116 W 3000 S Ioka Lane P.O. Box 607 Roosevelt, Utah 84066

21 5S 3W

Re:

Underground Injection Control (UIC)
Permission to Resume Injection
Ute Tribal 21-04 Well
EPA Permit ID# UT20736-06521

API #43-013-31735
Antelope Creek Oil Field
Duchesne County, Utah

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

Dear Mr. Farnsworth:

On April 17, 2015, the Environmental Protection Agency (EPA) received information from Petroglyph Operating Company, Inc. on the above referenced well concerning the workover to address a loss of mechanical integrity and the followup mechanical integrity test (MIT) conducted on April 9, 2015. The data submitted shows that the well passed the required MIT. Therefore, pursuant to Title 40 of the Code of Federal Regulations Section 144.51(q)(2) (40 C.F.R. § 144.51(q)(2)), permission to resume injection is granted. Under continuous service, the next MIT will be due on or before April 9, 2020.

Pursuant to 40 C.F.R. § 144.52(a)(6), if the well is not used for a period of at least two (2) years ("temporary abandonment"), it shall be plugged and abandoned unless the EPA is notified and procedures are described to the EPA ensuring the well will not endanger underground sources of drinking water ("non-endangerment demonstration") during its continued temporary abandonment. A successful MIT is an acceptable non-endangerment demonstration and would be necessary every two (2) years the well continues in temporary abandonment.

Failure to comply with a UIC Permit, or the UIC regulations found at 40 C.F.R. Parts 144 through 148 constitute one or more violations of the Safe Drinking Water Act, 42 U.S.C. § 300h. Such non-compliance may subject you to formal enforcement by the EPA, as codified at 40 C.F.R. Part 22.

If you have any questions concerning this letter, you may contact Gary Wang at (303) 312-6469. Please direct all correspondence to the attention of Gary Wang at Mail Code 8ENF-UFO.

Sincerely,

Arturo Palomares, Director

Water Technical Enforcement Program
Office of Enforcement, Compliance

and Environmental Justice

cc: Gordon Howell, Chairman, Uintah & Ouray Business Committee
Ronald Wopsock, Vice-Chairman, Uintah & Ouray Business Committee
Reannin Tapoof, Executive Assistant, Uintah & Ouray Business Committee
Stewart Pike, Councilman, Uintah & Ouray Business Committee
Tony Small, Councilman, Uintah & Ouray Business Committee
Bruce Ignacio, Councilman, Uintah & Ouray Business Committee
Phillip Chimburas, Councilman, Uintah & Ouray Business Committee
Manuel Myore, Director of Energy, Minerals and Air Programs
Brad Hill, Utah Division of Oil, Gas and Mining